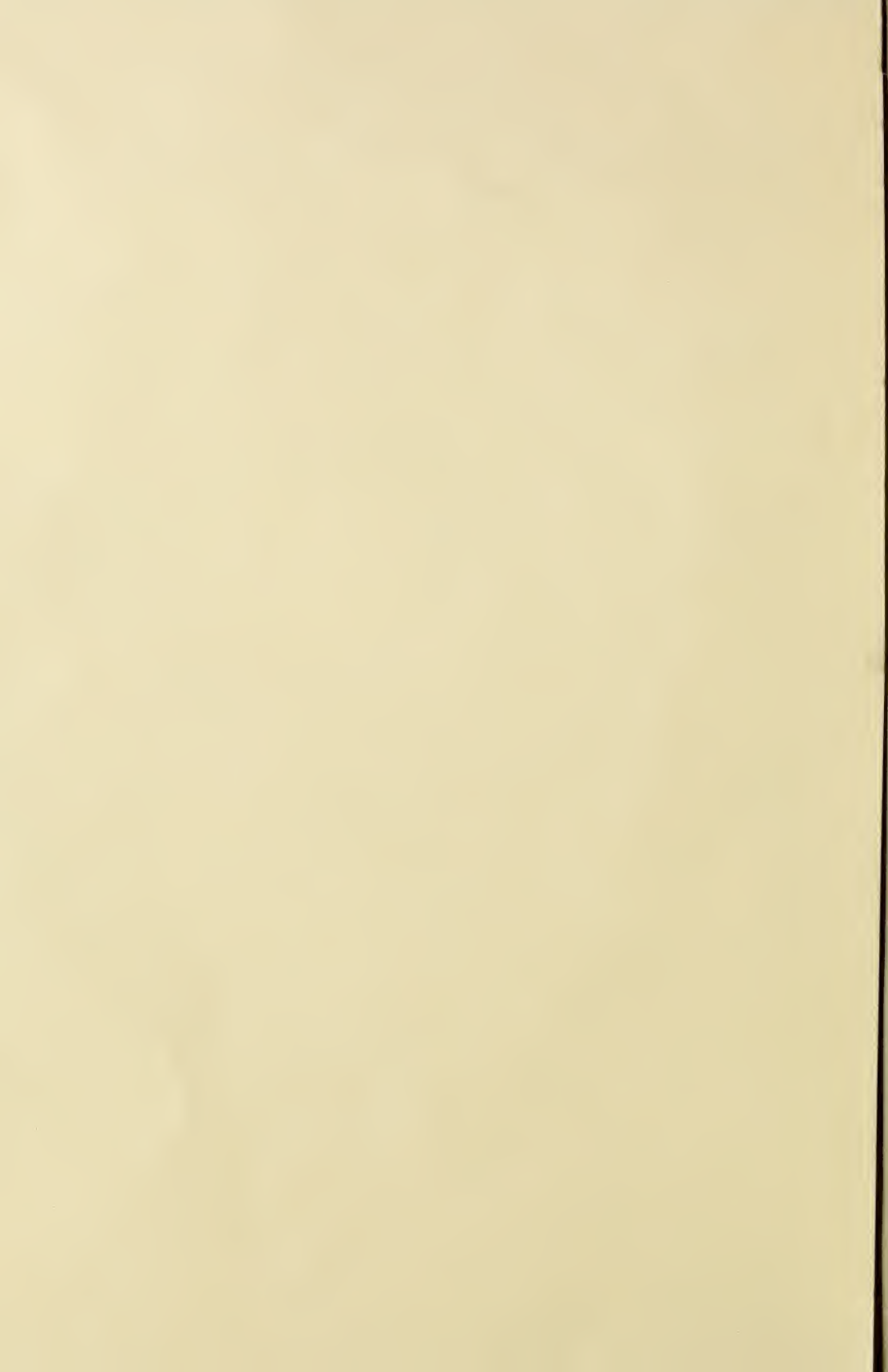


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THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

VOL. 10.

BALTIMORE, MAY, 1873.

No. 5.

TOBACCO.

ITS HISTORY—USES—MODE OF CULTIVATION—
GENERAL MANAGEMENT, AND ITS
COMMERCIAL STATUS.

TOBACCO LITERATURE.

This magestic, tropical looking plant, with its lovely flowers and great broad green leaves—this so much abused *weed*! this narcotic and gentle soother—this solacer of trouble of mind or bodily pain—the comfort of the poor, and the pleasant luxury of the rich; this plant, innocuous and harmless compared with the opium of Europe, the Hasheesh of the East or the Absynthe of the French in its effects upon the nerves, is a positive preserver of the teeth and a blessing to those whose constitutions require a gentle stimulant—has been the theme of Kings and Poets, Doctors of Law, Medicine and Divinity from its first introduction to civilization by the Indian, offering it to the white explorer as a token of amity by smoking the pipe of Peace. Temperance Lecturers are ever and anon freshening up their stale discourses with a phillipic against the use of Tobacco. That cowardly, nervous old egotist King James, was the first to issue his "*counter blast to tobacco*," after the great and learned Raleigh, had written about its excellences and is reported to have pronounced it to be

"Rest to the weary, to the hungry, food,
The last kind refuge of the wise and good."

Burton in his Anatomy wrote: "tobacco, divine, rare, super-excellent tobacco, which goes far beyond all their panaceas, potable gold and philosopher's stone, a sovereign remedy to all diseases.—A good vomit, I confess, a virtuous herb, medicinally used." But he goes on to say as it is abused by most men, it becomes "a plague, a mischief, a violent purger of goods, lands, health, hellish, devilish, and damned tobacco, the ruin and overthrow of body and soul."

John Lizars, Professor of Surgery and operating

Surgeon in the Royal Infirmary of Edinburgh, in his book on "*Tobacco, its Uses and Abuses*"—says, its constitutional effects are in many instances "giddiness, sickness, vomiting, dyspepsia, vitiated taste of the mouth, loose bowels, diseased liver, congestion of the brain, apoplexy, palsy, mania, loss of memory, amaurosis, deafness, nervousness, emasculation, cowardice, angina-pectoris, diseases of the pancreas and heart, paralysis, atrophy, ulceration of the lips, gums, mucous-membrane of the mouth, tonsils, throat, etc." He evidently means the adulterations sold in England and Scotland as tobacco, which the high tariff on tobacco enables the compounders of such poisonous imitations of tobacco to sell at a great profit.

No matter how violently it was denounced it continued to be more and more used until it has become a necessity to millions of chewers, smokers and snuffers over the whole earth, whether civilized or savage, and is the most important, in value and number of persons employed in its manufacture, off all the great industries of the world.

The "weed" has also had its admirers among the great writers and thinkers of past ages, and in the present times, who have eulogized its merits in prose and poetry. Lord Bacon says: "tobacco comforteth the spirits and dischargeth weariness, which it worketh partly by opening, but chiefly by the opiate virtue which condenseth the spirits." The pious and learned divine, Dr. Barrow declares, "it did very much regulate his thinking," and that wonderful Poet, Lord Byron has sung its praises thus:

"Sublime Tobacco! which from east to west
Cheers the tar's labor or the Turkman's rest;
Which on the Moslem's ottoman divides
His hours, and rivals opium and his brides;
Magnificent in Stamboul, but less grand,
Though not less loved, in Wapping on the Strand;
Divine in hookas, glorious in a pipe,
When tipped with amber, mellow, rich and ripe;
Like other charmers, wooing the caress;
Yet thy true lovers more admire by far
Thy naked beauties—give me a cigar!

Agricultural Calendar.

FARM WORK FOR MAY.

This is a busy month for the planter and farmer, and every moment ought to be employed in forwarding the work to be done.

TOBACCO.

Keep tobacco beds clean, top-dress if necessary with some rich compost, or with a plenty of weak guano water. During a shower or just before, a sprinkling of dry guano acts like a charm, provided rain follows in sufficient quantity to dissolve the guano. Prepare the land thoroughly for the plants. Plow deep, manure highly, harrow and fertilize heavy, and keep the Thomas' Smoothing Harrow at work. Very rich land and fine tilth is necessary to make this crop pay now-a-days.

ROOTS AND POTATOES.

Potatoes for late crop may be planted now.—Sugar beet, carrots, parsnips and mangolds ought to be sown early this month, on nicely prepared land, in the highest state of fertility. Root crops require deep plowing, very heavy manuring, frequent working in the early stages of their growth, and clean culture. Those who rear sheep or fatten sheep, and all who are in the dairy business should grow roots, for we consider them indispensable on such farms.

CORN.

In addition to what we said last month about corn culture, we now mention the fact that we have seen some very superior yellow and white corn at Messrs. E. Whitman & Sons, in this city, for sale as seed corn. As an evidence of the propriety of high manuring and good cultivation, we beg leave to call attention to the large crops made last year, in Carroll county, Md., by gentlemen who competed for the \$100 premium offered by the Carroll County Agricultural Society for the largest yield of corn per acre. Mr. John W. Murray raised 130 bushels of shelled corn on one acre, and the field was as good as his prize acre. Mr. H. E. Morelock raised 105 bushels, and Mr. Brown raised 120 bushels. In each instance the ground was accurately surveyed, and the corn measured by sworn agents. Mr. Brown gave a statement as to his mode of cultivation of this crop, which we thought would be interesting to the reader, and published it in our last month's number.

It will be seen from this statement that where there has been a good coating of horse manure plowed under without any other help, the yield was 17 barrels and 6 bushels, planted $3\frac{1}{2}$ by 3 feet, and two stalks in a hill. On the prize acre the cost of

manure is in excess of the extra yield in the crop. But the land reaps the benefit of this high manuring, and may be cultivated in rotation crops and grass for many years successively, without farther outlay for manures, and yield remunerative crops. This statement illustrates also the great value of stable manure, as the compost of ashes, hog and hen manure, one barrel of plaster, and two bushels of salt; bones 400 lbs., and 1,000 lbs. of bought fertilizers, only increased the crop about 30 bushels over the adjoining acre which had nothing but a dressing of stable manure like the prize acre had. This 30 bushels will not pay for the fertilizers, but the fertility of the soil was no doubt increased to double the cost of this high pressure manuring. We think the yield would have been better if more room had been allowed the corn plants; it was too thickly planted. We find another fact—the *Thomas Smoothing Harrow* was used until the corn had grown one foot high! Thus corn can be grown with great economy of labor by the use of this harrow. We would recommend, in view of the variability of our seasons, that a portion of the corn crop be not planted until the last of this month; which, if planted on highly enriched, well prepared ground, the seed soaked 24 hours in saltpetre and copperas water, with tar, and rolled in plaster, will grow quickly, and probably escape drought at the critical period of its growth, and yield an abundant crop of well ripened grain: In 3 gallons of hot water put 1 lb. of copperas, 3 lbs. of saltpetre, and one quart of tar; when all is dissolved add 20 or 30 gallons of water, and put the corn to soak in this steep. After 12 or 24 hours take out the corn and drain the water off; then roll the corn in plaster until every grain is more or less covered with plaster. No matter how heavily the land may have been manured, we advise, just before the corn comes up, sow on each acre two bushels of salt and two of plaster, intermixed, and harrow this in with *Thomas' Smoothing Harrow*.

STOCK

Of all kinds, on going out to pasture, require salt and ashes in plenty, to assist nature in ameliorating the violent change from dry substances to green, succulent food. Keep your hungry cattle from clover during wet weather; they are apt to become hoven by rapid over-feeding, until they have become satiated with their clover diet, and used to it for some weeks.

WORKING ANIMALS.

These should be well groomed and high fed, and great attention paid to their wants and comfort, for much of your success depends on these faithful, useful creatures.

MILLET.

Those who are scarce of grass for hay, will do well to sow a few acres in millet. The conditions to insure a good crop are a light, rich soil, well cultivated to a fine tilth, one bushel of seed broadcast, harrowed in and rolled. Cut when the seed is ripening, and cured like clover.

CORN BROADCAST.

Those who wish corn for soiling or for provender will do well to sow some now for soiling in July or cutting for provender in August.

SWEET POTATOES.

We cannot too strenuously urge the planting of this easily worked, large yielding, popular esculent. It pays better as a crop than the Irish potato. After harvesting the largest and best, a fine amount of fattening food will be left for your hogs, enough to pay for the cultivation of the crop. Hogs that have the run of a sweet potato patch, pea field—and then mast with some corn to harden their flesh, make bacon equal to Westphalian hams.

FIELD PEAS AND BEANS.

Early in the month, field peas and beans should be sown, whether they are intended for a green manuring for grain, or to be grown for seed. Either way they are profitable—and pay well for the labor they require.

WHITEWASHING.

Commence your whitewashing at once; clean out all the out-buildings, and whitewash them inside and outside, and run your brush over all the palling or plank fencing, and post and rails, you can find the time to devote to such work. It is healthful, and brightens up things amazingly about an old or new homestead.

ORCHARDS.

Trim and thin out the too thickly growing limbs and sprouts near the bodies of the fruit trees, and wash the body and larger portion of the limbs of the trees with a solution of 1 pint of ashes, $\frac{1}{2}$ pint of salt, and 1 pint of soft-soap to one gallon of water, with a little sulphur. Some prefer washing them with a weak whitewash made of lime and salt. Dig around the peach, apricot and plum trees, and kill the worms; sprinkle some lime with a little salt, and level the earth after being worked up around the trees.

PUMPKINS.

If in a patch to themselves, plant pumpkins early this month, in rich hills 10 feet apart, or wait until you thin your corn, then plant them in your corn hills, 10 hills of corn apart, leaving one vine to a hill.

DRAINING.

Let us remind you that it is necessary, if you want heavy yields of crops, to drain all wet spots, or where the water is likely to be retained in excess. Subsoiling will often answer the purpose, but underdraining with tiles is sure and permanent, and open drains or ditches, if it be most convenient, or if the amount of water or the locality requires them, but they require constant attention to be of full value.

MANURING.

It is presumed that all the manure you have will be drawn out this month for use by your spring and summer crops, and we would urge you to begin securing, saving and getting together every material in your power for composting, or in other ways converting it into manure during summer, so you can have a large supply on hand for use the coming fall, when you are preparing to sow your wheat and setting down meadows, or for top-dressing your grass lands early next winter. It would be well to have on hand a lot of well decomposed manure to top-dress your meadows as soon as the hay is taken off.

CLOVER.

Cut clover for hay as soon as the blossoms appear generally over the field. The hay will be better for thus early cutting.

REARING STOCK.

We cannot forego the expression of a desire that is ever present to our mind, of seeing our farmer friends paying more regard and taking a deeper interest in stock-raising. Let us now plead for the lives of the best calves, particularly cow calves, and beg our friends to save them for at least two years from the butcher. They will be well repaid for a generous treatment of these young animals for two years, and better, for three years. Save the best cow calves, and breed at the proper time to improved bulls. Save the best ewe lambs to supply the places of old and inferior ewes to be sold this autumn. Every two years get the services of a buck superior or fully equal to its predecessor, and you will soon have a superior flock of sheep. The same in regard to hogs. We would suggest that every farmer who has a fine mare, and can dispense with her services for a month or so, should breed her to some superior blood horse of high pedigree, good points and large size, and fine action, and the produce will be worthy the expense and inconvenience, for a useful, serviceable horse of all work will be obtained, or it may be an animal worth thousands of dollars. No such "good luck" will result from breeding a worthless mare to a barrel of corn runt, or a beefy over-grown monster. We

despise these picayune stallions, and cannot either admire or believe in those who only boast of the enormity of size and weight. If they were grown to be eaten, then, like Short Horn cattle, the larger and heavier they were the better; but until we become a hippopotamous people we must decline assenting to the propriety of breeding to these elephantic beasts. The medium sized, active, enduring sinewy, high mettled animal is what the people want for all purposes, the plow, the saddle, and quick draft on the road, to either the heavy farm wagon or the light family carriage.

Why should the people of the South and the Middle Border States pay such immense sums annually for Western and Northern horses and mules from Kentucky and the north-west? We can raise the supply needed, better suited to our climate and work, at small cost of either labor or food. It takes no more to raise a horse or mule than to grow an ox, or five hogs two years old, and the horse or mule will at three years old be worth twice as much as the ox at same age, or the hogs at two years old. A couple of horses or mules raised every year on each farm would supply our home demand.—On many farms, half or more of the profits go to keep up the stock of horses and work cattle, and often on such farms there is wasted more food than would subsist enough young stock to supply the wants of the farm. But our planters and farmers ought to look to breeding horses and mules and raising oxen, not only to furnish working stock for their individual wants, but as a source of yearly revenue to swell largely the receipts of the farm. Let it be remembered that the blooded horse is admitted to be more capable of resisting disease, will last longer, and do better service than the common breeds.

DRAINING FIELDS.

A correspondent of the *Ohio Farmer* gives the directions for draining fields without the use of the spade:

First stake out the line for the ditch, then plow three, four or five furrows, depending upon the size of the plow and the depth of the ditch wanted, taking the last furrow from where you want the centre of the ditch, then with a team and scraper (a good roap scraper answers very well) scrape the earth each way carrying it back one, two or even three rods, if there is any low place to be filled up, sloping the banks so that you can drive a team and wagon or plow through without any difficulty; then if the land is flat or level, plow at right angles from the ditch in lands fourteen or sixteen paces wide, opening the last or dead furrow into the ditch. Plow in the same manner twice or three times if necessary, the last or dead furrow in the same place until your land is dry, and in rolling beds fourteen or sixteen paces wide. You can then cross the lands or beds and your land will remain rolling and dry.

GARDEN WORK.

This is perhaps the busiest month in the year with the gardener who desires early and late supplies of vegetables in abundance. Nearly all the beds must be filled with something this month, and the grass grows now with great rapidity, requiring watchfulness and industry to keep it in subjection. The root crops, such as beets and carrots, &c., are to be thinned, and plants from the hot-beds are to be transplanted into cold frames, and some to be again transplanted into other frames or in the open ground.

Cabbage Plants.—These are to be planted out in well manured land, where cabbages have not been grown for at least three years; they dislike being planted on the same ground in successive years. Sow seeds for late crop of Flat Dutch, American Drum Head Savoy, green curled Savoy, Stonemason, and Red Pickling cabbage.

Brocoli and Cauliflower.—Sow seeds of these for late fall crops.

Peppers—May yet be sown in a rich bed. The different varieties should be planted a distance apart, or they will intermix and be hybrids, neither one thing nor the other. Set out the plants grown in the hot-bed.

Corn.—Plant more early corn for a succession of this delightful vegetable.

Sweet Potatoes.—Plant these early this month.

Beans.—Plant Lima and other pole beans this month, in the hills directed to be made last month. Sow a few rows every ten days of snap or string beans; the best of these is the White Wax bean, of late introduction, and delicious, free from strings; they are eatable as soon as the pods are a yellowish white color. Boil them tender, chop them up, put them in a stew-pan with butter, pepper, salt, and some cream or rich gravy from pork or fowls, let them stew a few minutes, and serve them hot, and you have a delectable dish of what the French term "haricot ragout."

Watermelons and Canteloupes.—Plant these the very first of the month in hills prepared as directed in last month's gardening hints. These vines should be planted in separate patches, a long way apart if possible, to prevent mixture, although the general practice is to put them in the same bed.

Cucumbers.—Plant your principal crop of cucumbers early. When they come up keep them dusted with soot and a little sulphur, or cover them with hand glasses or gauze, to protect them from the flies and bugs until they get into the rough leaf. When they begin to form the blossom, pinch off the ends of the vines; they will then branch, and bear fruit earlier and longer.

Brussels Sprouts.—Sow the seeds of these for plants to be set out in July.

Salading.—Sow seeds of small salading of all sorts. They never come amiss,

Peas.—Sow a few rows of peas every week. The Marrows are the best for summer peas.

Onions.—Thin out and weed your onions.

Beets.—Sow the long red beet for fall and winter use.

Turnips.—Work and thin your early turnips, and sow more seed for a succession of the crop.

Radish.—Sow a few seed often of this nice breakfast and tea relish, that you may always have them crisp and tender for use. To have them so the bed must be extremely rich, that they may grow rapidly.

Spinach.—Sow some spinach two or three times this month. It is a wholesome and popular vegetable, and cannot well be too often brought on the table.

Lettuce.—Set out more lettuce plants, and sow seed on the border. Tie up such as are about to head.

Squash and Cymplings.—Plant cymplings for summer use, and Hubbard squash and Honolulu for winter use. The latter is very rich and nice, grows to great size; we saw one last autumn that weighed 70 lbs. The Hubbard keeps all winter, and cooks dry and sweet; it is inestimable to the housekeeper, and valued by every lover of fresh vegetables in winter.

Roots and Plants.—Those plants and roots which were set out for seed ought to be staked and secured, and the tops cut off before the seed-pods burst and lose the seeds.

Pot Herbs.—Sow the seeds of pot herbs in a somewhat shaded spot, keep the ground moist until they come up.

Nasturtiums.—Plant nasturtiums this month; they are ornamental, and some can be planted in the flower garden. They make a nice pickle, and the blossoms and bud leaves are a good pungent relish with bread and butter.

Tomatoes.—Set out some plants, and transplant others to six inches or more apart in cold frames.

Salsify.—Sow some salsify seed for winter crop.

Okra.—Plant okra for general crop this month.

Egg Plant.—Set out egg plants the last of the month. They should have been, or must at once, be transplanted from hot-bed to cold frames, so as to grow stocky and strong, to be taken up with a ball of earth, and put in open ground, when the weather gets settled and warm, where they will grow right off, not checked by the transplanting, but benefited.

Endive.—Sow seeds of endive early, and for second or late crop, the last of the month. Well

blanched this plant is much liked by those fond of salads. It comes in well after lettuce season is over. It is a graceful, pretty dish on a table.

Borecole.—Sow seeds of borecole, that a sufficient quantity of this species of cabbage may be planted out for winter use. Standing out all winter it furnishes on its tall stalks the nicest sprouts in early spring that are to be had. We deem them superior to the famous Brussels sprouts, or the common cabbage sprouts. They are very saleable at a high price in market.

Grapevines.—Of course your grapevines have been pruned and tied to the stakes or trellises.—Now work about them, and throw coal ashes around them, two or three inches deep for a couple of feet on each side of a vine. Our intelligent correspondent, *Wicomico*, in our April number, gave her experience as to their use and effect on plum trees, which recalled to our recollection the fact that two years ago we hired an old German, who had been raised among the vineyards of the Rhine, to trim our grapevines, and he advised us to use a deep mulch of coal ashes. We never had such success before with grapes, and he predicted it, because he had tried it for several years at different places where he had been employed to trim the vines. The ashes keep down grass, preserve moisture, are probably fertilizing, and may be offensive to insects. The result of their application to our grapes was certainly very satisfactory, for where they were not applied, the grapes were a comparative failure.

CULTURE OF HORSE-RADISH.

In nearly every garden, the horse-radish is stuck away in some stony or obscure corner and left to grow for years, producing roots only the size of a finger, and rank and acid in taste. The way to grow it to be palatable and in one year to be the size of a man's wrist is as follows:

Select a good sunny piece of ground; dig it early and deep; mark off the rows, 3 feet, and put along the row as much manure as for celery; draw the earth from both sides over the manure, and with a crooked cedar stick, plant the roots standing almost horizontal in the manure, so close, that the roots of the second plant, are close under the first one. The roots to be planted should be finger-thick, about 12 to 16 inches long is most convenient; get them out early in April, and rub or scrape with a knife the whole length to within $\frac{1}{2}$ inch of either side; in the latter part of May or beginning of June uncover the roots; and all the little roots, except the lower ones, have to be rubbed off; as also all the shoots and heads but one, and to be covered up again. It is beneficial to tear the big leaves off, and September repeat the operation, and by setting in of cold weather you will find thick and tender roots, which sell in New York city, from 10 to 12 cents apiece, — *Gardener's Monthly*,

For the Maryland Farmer.

A VARIETY OF STATEMENTS AND SUGGESTIONS ALL IMPORTANT TO THE FARMER.

NUMBER SIX.

Dear rural reader: let us rejoice together, and give thanks to the great and divine Author of all that is good, loveable and enjoyable to us, that it is our lot to enjoy the return of another charming *May*, the month of the twelve; whilst so large a number of our race have during the past year, fallen victims to him who claims us all.

The work of nature is perpetual, alternate production and destruction, throughout her illimitable infinite realm, which the votaries of science have divided into kingdoms; *e. g.* the vegetable, the animal, the mineral kingdom, &c., which are the divisions of one of the two great primary kingdoms the terrestrial and celestial. The thoroughly intelligent and scientific farmer should possess some knowledge of the principles controlling the ever changing, wonderful phenomenon of both these kingdoms; as his labors must be conducted in a manner to co-operate and harmonize with the unalterable ways of the Author of all nature, or a full degree of success is never attained. The aspiring student of Agriculture, when he arrives at the stage in which he is capable of contemplating the stupendous work before him, would, were this field of labor all developed at once be utterly disheartened and discouraged, as thousands have been who have been reared on the farm, and have been forced into the performance all its monotonous drudgery, and required to pursue it year after year, in total ignorance of every principle which does govern the workings of nature, and should control the plans and manipulations of the husbandman—but fortunately the student gets a knowledge of one principle after another, each shedding new light on his path, and rendering all before him interesting—and if he is really zealous, it will become irresistably seductive.

Frequent complaints have been made to me by superannuated farmers, that their sons had all deserted them, had been lost in the war, or had gone and embarked in other business, and they were left dependent on the demoralized labor of the day, with which, as they say, one "cannot more than live in the most humble manner on the products of a farm, which, before the war would have sold for an amount, the interest of which, would have been an ample support for the whole family, and a surplus."

Too Late.

I cannot deny the truth of this woeful history, so often repeated; but the day has passed for me to afford them any relief, by pointing out the erroneous course they have pursued in conducting the farm, in rearing their sons that has driven so many from the parental roof of the homestead, and caused them, at an early age, to seek a more congenial, and more promising vocation—it is forever too late with them.

But there is a field in which there is hope of correcting the errors of the past, by inaugurating a reform so forcibly suggested by the lamentable failures of the past. It will be my purpose, in the following, to take that field, and to endeavor to prove that the desertions from the ranks of yeomanry by those whose tastes and energies would have elevated the calling to the standard among the vocations of man that it deserves to occupy, if they had only been rightly directed.

The Field of Reform.

All successful reformations have been effected by attacking error at the root of the evil.

The evil or error in our great national interest in which we assume that reform is so much needed, is deeply rooted in the almost impenetrable, obdured intrenchments of ignorance and prejudice; hence it is not to be uprooted or vanquished by "storm." Well aimed shafts from the irresistible "battery" of science, located high on the hill of experience and intelligence, are one by one to be lodged within the assailed encampment, which has an area limited only by the extent of the broad acres of the pastoral fields, and the tilled portion of the face of the earth.

To embark in an attack on so formidable a foe, so widely scattered, without first having made a most careful reconnaissance of the condition of those it is proposed to attack, would evince a great lack of skill and experience in this peculiar warfare.

The Point of Attack

having been determined, the force to engage in the attack is next to be decided, and the hour, and whether under the cover of darkness, or in open day-light, will be most effective.

It having been the decision of the council of war, in reference to the universal campaign, in which we are about to embark, that *ignorance* must be put down, and *intelligence* be given full sway in her vast domain, before any vantage ground can be securely held, on which to found the broad base of that future superstructure, which is to rest on the rock of *science*, and its towering walls are to be of solid *common sense*, "cemented" and "bedded"

in that well proven element industry; its towers, turrets and battlement, to be faced in the lustrous and imperishable material, quarried from the depths of well conducted, and well tested experiment, from the brilliant surface of which, shall be reflected on every cultivated field, the desideratum sought, viz., *plenty and contentment*, and a *growing fondness for rural life*, now so repulsive, to so many.

The Period of Attack,

to be effective must be "*in the bud*"—we cannot bend the trunk of the matured old oak, but we can wind the tender twig around the finger, and by faithful nurture, or daily bending the incipient growth, it becomes like clay in the hands of the potter.

The human *bud*, the lad who is to be the farmer and planter of the future, to be qualified for success and contentment in the pursuit of the *Science*, and the Art of Agriculture, must be specially educated for his pursuit. That education must begin with his beginning to think and act, even in the nursery.

Many a military man is able to trace his fondness for military trappings, and that which eventuated in making him what he is, back to his soldier cap, toy gun, drum, &c., at that age when he only aspired to the possession of a toy, but by constant familiarity with this class of toys, and especially if the father had taste for military life and cultivated it in his son.

The same influence may be made effective in the cultivation and nurture of the lad who is to be a farmer. At the proper age he should have his pet cat, dog, lamb, pig, calf, sheep, pony, cow, colt, horse, garden, field, and finally a farm.

The proper treatment of each of these pets should be as carefully inculcated by the parents, as any instruction in anything else. It should be the special object of all whose privilege it is to dictate or direct the lad, from infancy to manhood, to instill into him by all possible means, the spirit of kindness towards every animal subject to him, and especially educate him to minister to the demands of appetite, and as a reminder, if he neglects to give a meal to one of his pets, withhold one from him, that the suffering he has inflicted, whether from indolence or neglect, shall be so well impressed that it will not be forgotten.

The course alone, if carried out with the fidelity with boys, would in a great degree, prevent the horrible, wanton cruelty that a denizen of the city may see every day and every hour in the day in the treatment of horses, and the same revolting cruelty may be seen in the treatment of all the domesticated animals on the farm. If the boy sees unfeeling barbarity practiced on the helpless brute, and is

taught it by the powerful influence of parental example, the error is perpetuated with certainty; but if, on the contrary, an example of kindness, impressed by timely, and oft repeated precept, is constantly brought to bear, the proclivities and impulses are elevated and refined, and an entirely different and higher order of being is produced, and one vastly more nearly resembling Him in whose image we are taught we were originally created.

Having effected this, an important point is made, and all others to be attacked are rendered less formidable to conquest.

The Second Engagement

in the plan of attack, is to be upon those influences and erroneous customs that have driven from the farm so many, who would have inspired such meliorating and such exalting effects on the fraternity of yeomen that they could have justly styled knights of the plow.

The Influences and Customs

that have been so repulsive to farmer's sons, especially to the class that I have described, whose aspirations, spirit, and tastes forbade their confinement in the ruts of groveling fogysm, with anything short of a "ball and chain," are as numerous as they have been baneful. Prominent among the adverse catalogue, has been the common practice of overworking the weak, and perhaps overgrown boy, encouraging, by silly flattery and praise, the unsophisticated lad, to perform the work of a well developed man, until the tender physique, and pampered ambition are both prematurely crushed, and the naturally manly ingenuous boy, is completely unmanned, and the longer he is compelled to remain under such barbarous restraints, and ruinous abuses, the more disgusted he becomes with his birth-right vocation, until he is forced to the resolution, that he will do anything else rather than drag out his days in the miserable slavish life of the farmer, so called. Every tendency of his labor, so indiscreetly applied and directed, and all the surroundings of his home, tend to strengthen his resolution, until finally in desperation, he breaks from the galling bonds, and resolves to try something, or anything else, correctly deciding that there is little danger of his encountering anything more intolerable, in the way of a vocation by which to obtain victuals and clothes, which is all he has ever enjoyed. The seductive attractions of the city beguile the innocent boor, and the ignorant, unwary youth soon finds himself a prey to the "shark," who lurks for the like of him, and often, before he has his first sleep in the fairly, beautiful city, some pretended friend has relieved him of all

that he possessed, (except the clothes on his person,) with which to pay for a lodging. The less he possessed on arriving at the farm of houses, the better, for the less will he loose, and the less expensive will be the necessary initiatory lesson that the "green un," unprotected, must learn sooner or later.

It will not be my purpose to follow the unfortunate youth further, it is sufficient that the farm as he found it, was unbearable, and that he was forced to leave it, when, as I shall attempt to show in the succeeding chapter, it might have been to him all that he could desire or reasonably expect to find in a field of employment in which he was to obtain by labor, a respectable livelihood.

J. WILKINSON,

*Rural Architect, Landscape Gardener, and
Consulting Agriculturist, Baltimore.*

For the Maryland Farmer.

TO YOUNG FARMERS.—No. XVII.

DIGNITY AND ATTRACTION OF FARMING.

It has become proverbial, and almost a crying evil, that farmers' sons, particularly the more ambitious ones, are anxious to leave the farm, soon as they are of age and free, for the town, to engage in what they *think* the more attractive and lucrative business to be found there.

Let fathers make the farm-home more intellectual by a variety of work, such as a shop of tools with a work-bench, in some suitable building, where the boys can mend the tools, and repair the gates, doors and out-buildings. Supply all of them with more books and papers, not on romance and history alone, but on sciences in attractive form.—Encourage the boys, and girls too, in ornamenting the grounds, the garden and the home buildings; this will enlist their inventive faculties, and gratify their curiosity, calling out their taste, and engage their minds in pure and useful channels of thought and amusement.

Encourage them in keeping accounts of all experiments and transactions, noting the results, whether profitable or not, of all operations; have them learn to write upon all subjects, interesting to their calling, and to clearly state and explain everything; teach them to estimate the value of things, and to calculate the cost of crops, and determine what part of the labor is most profitable, and what most suitable for the particular location and circumstance—to look the whole matter over carefully and intelligently—with the methodical precision which a merchant or manufacturer does; and, our word for it, the farming business will soon and surely be found anything but dry and irksome; and

the charm of the intellectual employment will be so certain that they will almost forget there is any drudgery. Have them study the character, needs and qualities of fruit trees and their fruits; of crops and how to produce in all high and uniform thriftiness, determining which succeeds best, and which is most liable to failure—which most profitable.

The various conditions, circumstances and localities of different farms, and their varieties of soils, with climate and weather, and the adaptation of crops to soils and situations; all this is a deep, broad and fascinating occupation for the mind, and calls for earnest thought.

Then the study of the nature and needs of the various kinds of stock, and their treatment, with their adaptation to various uses and markets, which are accessible, requires brain.

The selection of fruits, with reference to the locality and best market in reach, gives activity and health to the best minds.

In short, the endless points and practices requisite to produce wise farming, and give highest results, prove that true farming is the most intellectual, noblest, as well as the most attractive calling that can possibly engage the best and ablest minds of our young people, and must give them the fullest and purest enjoyment.

Then, we say to our young men, and say it proudly, honor your profession and yourselves, by exerting your best minds and widest intelligence in securing its highest perfection; and all good men will honor you.

Truly, practical farming is putting into practice the best wisdom and science that can be attained by study, thought and observation; and when this *is done*, no other business and profession will be found so attractive and profitable as the profession of Agriculture—in its three divisions of grain-growing, stock raising and fruit culture.

This carried out, in its fullness, will soon put an end to the habit of our farmers' sons leaving rural homes and occupations for the less noble and useful avocations of town and city.

And therefore we ask our young men—and young women too—to study over this subject; we respectfully, as their sincere friend, say, look at it in its length and breadth—as the feeder of the million, and the basis on which all other business rests—and then say if you will not all agree with the opinions of old

LAND MARK.

A SELF-SUCKING COW is prevented from thus indulging by an Illinoisian, who puts a halter or strap over her head that will hold a common bridle-bit in her mouth. She eats and drinks just as well as without it after a little, and is finally cured of the propensity.

HEREFORD CATTLE.

QUEENSTOWN, MD., April 5, 1873.

To the Editors of the Maryland Farmer:

Some years ago, having been unsuccessful with other breeds of cattle then fashionable amongst us, I sought for a breed possessing hardness of constitution, thriftiness upon coarse fare, and adaptability to the changing circumstances then occurring. My attention was directed to the Herefords, which have perhaps been overlooked by farmers on account of what some deem their unsightly appearance, or for the want of proper information concerning them. I had seen at our own Fairs prior to 1860, some fine specimens of them exhibited by the Hon. John Merryman, of Hayfields, and saw others also the same year at the National Fair, held at Cincinnati. In a conversation subsequently held with Col. Wm. D. Bowie, of Prince George's county, Md., (a most careful and judicious breeder,) I learned that he had been for some years crossing them upon Devons, and had formed a high opinion of their value.

In 1863 I commenced and have since been breeding them, and now feel able to endorse what is claimed for them in regard to their hardness of constitution, thriftiness, facility to fatten, docility of temper, and value as working animals. With respect to their hardness and thriftiness, the past series of severe winters have fully satisfied me in this respect. Most Maryland farmers know how exceedingly difficult it has been of late years to have their stock properly attended to. Notwithstanding which, I have been gratified to see my cattle come out each successive spring in better condition than when I was able to bestow more labor and care upon other breeds.

Recently various agricultural journals of Europe, and this country, seem to be directing more attention to them. A late number of the "*London Field*," thus speaks of them:

"The Herefords are an aboriginal race of cattle, indigenous to the soil of the country from whence they take their name. They are of the middle-horn tribe, and have for ages past been highly esteemed for their fine quality of flesh which, by the intermixture of fat and lean, presents that marbled appearance so much prized by the epicure, and commands a top price in the market. The rapidity with which they lay on fat is certainly unsurpassed, if equalled. Experimental trials have been made with them and selected specimens of their pure breeds, which have ended in the uniform result that they yield the best return for the food consumed."

"The principal herds are in the hands of the

tenant farmers of Hereford and adjoining counties, and have been handed down generation after generation, from father to son, in all their purity. The steers are looked upon as the rent payers of the district, and perhaps no finer sight of cattle can be seen in the kingdom than that of the Hereford October Fair, where several thousand line the streets of the ancient city, and by their uniform appearance lay claim to each other as kindred of the same family."

"The production of steers to meet the demand of the graziers being the chief aim of the breeders, less attention has been paid to the cow, and her milking qualities have been neglected, and with some she has obtained the reputation of being a bad milker, but in other districts where her milking properties are cultivated, it is not so, and as her aptitude to fatten surpasses most other breeds, and she consumes less food in proportion to the quantity of meat made, she is gaining favor in many of the dairy farms of Dorset, Gloucester, Somerset, Cornwall, &c. The cross breeds are equally as hardy as the natives, they feed more kindly, attain greater weight, and are more prized by the butchers."

That they are well adapted to all climates seems proven by the testimony of the manager of the government farms in Jamaica, Mr. J. Edwards, who says, "the cross with the Hereford bull and native cow, is so direct that the bull carries all before him, and many of our half bred cattle you would scarcely suspect as being any other than pure breeds. Here we require a breed cattle to be good workers, hardy, and of great aptitude to fatten, and I fear no contradiction when I say no breed displays those qualifications in so eminent a degree as the Herefords."

The well known reputation in this country of the herd of Mr. F. W. Stone, of Moreton Lodge, Canada West, seems to establish equally their adaptability to a rigorous, as well as a moderate climate. This is confirmed by a letter from the late Governor Crapo, of Michigan, who says "the Herefords have done extremely well, they have no more than ordinary fair keeping, yet they are in prime condition. I have little doubt the Herefords will yet be the stock for Michigan. They are docile, and hardy, besides being very easy keepers, and I have no doubt will stand a long severe winter, and come out ahead of the short-horns in the spring, on two-thirds the cost of keeping."

In a letter of W. H. Sotham, (who I believe originally introduced them into this country,) to the *Prairie Farmer*, and copied into the January number of the *Maryland Farmer*, of 1872, he speaks in high praise of them, and quotes Hon.

John Merryman of this State, who writes him, "I slaughter several steers each year, and have never had less than sixty pounds of beef for one hundred pounds live weight. Whenever I have had opportunities of ascertaining the weight of either steers, or calves, sold to the butcher, I have been surprised at the weight attained upon the most ordinary keep. It is to the value of the breed in respect of hardness of constitution, thriftiness upon coarse rough fare and treatment, docility of temper, and general usefulness, that I would particularly commend them to the attention of farmers.

Respectfully,

W. H. D. COURCY.

For the Maryland Farmer.

PLANT FOOD.

NUMBER TWO.

What has been said about annuals may also be said in a stronger manner of biennials and of perennials.

Taking for instance the turnip. Dividing the period of its growth for convenience into four divisions of equal spans of time; it has been found that in the first period the development of the leaves is to that of the roots is about as 300 is to 1. In the second period though the growth is still greater, the proportion is diminished as the excess of leaf growth of root development is only as 5 is to 1. In the next or third period the excess is reversed, though only to a comparatively small degree as the roots are found to outweigh the tops by about one-fifth.

In the fourth stage the roots out weigh the tops by three and a half times, and it is further to be noted that, during this last period, whilst the roots have considerably more than doubled their weight, the leaves have correspondingly lost nearly one-half of theirs. Of the increase of the weight of roots, a very considerable portion is due to the decay of the leaves, which have retired their stores of mineral salts and nitrogen into the store house, which is hereafter to feed the seed and produce posterity.

The principal substances contained in the turnip are as follows, in the order of their quantity:

First, water, (oxygen and hydrogen); Second, potash; Third, sulphuric acid; Fourth (chloride of Sodium); Fifth phosphoric acid; Sixth, nitrogen.

In a good sample of this plant, water is in the proportion of three fourths of the whole. The other ingredients are, without going into extreme fractional parts; potash, 8.52; sulphuric acid, 4.21; salt, 3.53; phosphoric acid, 3.27; nitrogen, 3.05.

It would be useless here to speculate upon the exact forms in which these substances are absorbed

by the plant, particularly as but little is known of the secret chemistry of vegetable nature, it is probably in the form of some nitrogenous compound; but all the substances above named must be accessible to the roots in sufficient quantities, and as the roots at first have but little spread and all substances to be assimilated by them must be in contact with their fibres, it is necessary that the surface soil should be rich in these materials.

At the completion of this fourth stage, the turnips having attained there maximum of growth in the bulb, or more properly root, and having declined greatly in there tops are ready to be gathered, and when so treated they take away with them all the products they have collected from the soil and air during the period of their growth. If, however, the crop is raised for seed and left in the ground for that purpose, all these substances remain in the ground with the root until the growth of the flower stalk commences, when the storehouse begins to be exhausted, a process which proceeds until the seed is ripe, when there is nothing remaining except a little ash material consisting of carbon and a small quantity of earthy matter. If, however, from any cause the seed is not formed and the turnips rot in the ground; the treasures of the storehouse remain there and are available in concentrated and highly digestable form for the next year's crop.

It is well known that a seed which is a magazine of concentrated food for the plant from which it sprung, will grow and for a time flourish, in pure water. This plant however so raised though largely increased in bulk has no increase of weight when dry, the fact being that the supply of food is enough only for the internal requirements of the embryo plant, and when the root so pushed forth finds no external nutriment, the seed has no surplus available to enable the blade or leaves to convert the plant food existing within its reach in the air, which when the roots are able to find food, plays so important a part in the economy of a healthy plant. In consequence of this the plant though vigorous at first soon languishes and withers away.

From this it may be seen that some of the elements necessary for the health of a plant may be in proper condition for assimilation and within reach of the gathering organs of the plant, and yet without its full number of constituents it has no power to avail itself of those which are ready for use. In this case the action of plants is an exemplification of the universal laws of chemistry, that each element assimilates an invariable portion of the other elements for which it has a chemical affinity, and when the particular substance is formed as an

acid, an alkali, or an oxide, the proportions of the constituents are the same in all cases, any one element which has been in excess having that excess left out. To make this rule more marked in its consistency, both the salt and acid will assume as a mixture a portion of extraneous matter for which it has no chemical affinity so as to render the product impure. In the same manner plants take up an amount varying in quantity of mineral substances, which are frequently found in their ash; but which do not appear to form any necessary part of their food. Such substances are not to be confounded with plant food.

Amongst biennials clover is one of the most important, and the economy of its existence is very similar to what we have related. In the first year of its growth it flowers but little and expends the greater portion of its early strength in pushing forth leaves, when these are well developed the roots begin to store away the food for the next year, taking a large proportion of these constituents from the over-growth which consequently if left to itself would mature very little seed. If the crop is cut away whilst just at its best, the root begins to restore the balance by assisting the top growth of the plant, and if the weather permits there will be a second top growth which in its turn will render up the wealth of nutriment which it has collected from the air to its natural storehouse.

The clover plant in its natural condition is a biennial. In the second year of its growth, if left to itself it will fully perform the functions of its nature in growing seed and die; if, however, art steps in to restrain nature it will continue for many years to attempt the same process and being checked by premature cutting and sustained by lavish manuring will continue to yield crops for many years; but if one element is omitted exhaustion will come as soon as the natural supply of that material is exhausted, and the ground will become what is called clover sick, or in other words, however flourishing it may appear in autumn, and however well it may have stood the winter, as spring advances it will appear to be diseased, become spotted with yellow, and die off just when it should be yielding a crop.

A. T. W.

TO BE CONTINUED.

PEPPERS.—No garden now-a-days is complete without a portion set apart for the cultivation of peppers. They are cultivated mainly for pickles or for seasoning. Sometimes they are used medicinally, especially the Cayenne.

Sow the seed early, in a hot-bed if possible. If you have not a hot-bed, select a warm, well-sheltered situation, and sow as soon as the warm weather has become fully established. From the middle of May to the first of June it will generally be safe to do the sowing. Transplant when from four to six inches high.

For the Maryland Farmer.

"THE EARTH IS THE LORDS."

The plane upon which our agricultural institutions are moving, is it such as to meet the wants of a devout people?

Once the seasons were held more or less accountable for our failures; and if the effect of thorough culture is to lessen our dependence upon seasons, yet certainly it was never imagined that the necessity for dependence upon the good providence of our God, could ever be superseded. "The Earth is the Lord's, and the fullness thereof," and though the earth is made to yield of this fullness, by well established laws, these laws are not so guaranteed against disturbance, that the agriculturist can afford to study the law, regardless of the pleasure of the living Lawgiver.

"Them that honor me I will honor." If organized with more distinct reference to this principle, it may be that our schools of agriculture would find less difficulty in meeting the expectations of communities thoroughly imbued with a sense of man's dependence upon a kind providence.

"Honor the Lord with thy substance, and with the first fruits of all thy increase; so shall thy barns be filled with plenty," is another form of the same important truth, and it may be that the neglect of this, overlooked as it has been by the journals of agriculture, is the more philosophical solution of our repeated failures of crops.

Not their province, they may say, to discuss questions running up so high; but do they ever recognize the philosophy of looking here for the causes they fail to discover elsewhere? Every science is akin to every other science, and it may turn out to be miserable philosophy for our advisers to ignore the plane of higher duty, and expend their strength upon rotation, drainage and thorough culture.

Virginia.

O. P. Q.

THE CARE OF SHEEP.

One of the most important matters to be regarded in the care of sheep is to see that they are allowed to be quiet. They should never be frightened by dogs or strange persons. The feed they most need at this season of the year is fodder, oats or hay, and if it is the purpose to fatten them they should be allowed corn in small quantities. An excess of corn will injure sheep much sooner than it will any other class of stock.

Breeding ewes should not be allowed to get fat, neither should they be permitted to get low in flesh. We believe it is a conceded fact that a frequent change of pasture is important in the care of sheep. It has been said that if sheep are taken from one pasture and put into another where the grass is much inferior, they will fatten by the change.—*Farmer's Home Journal*,

TOBACCO.

For the Maryland Farmer.

TOBACCO.

BY J. J. LAMKIN, OF PITTSYLVANIA COUNTY, VA.

I shall not in this communication attempt to enter into a history of tobacco, which was so graphically set forth in the February number of the *Farmer*, but shall give my views upon the cultivation and care of fine tobacco, which may prove of some utility to your readers, as I am living in that section of old Virginia lying between Lynchburg and Danville, a portion of which county is the finest tobacco region in the world.

The false idea has obtained among some planters who ought to know better, that the land for tobacco should be turned deep in its preparation, but this is a wrong policy, for the reason that the clay will be thrown on the surface of the land, which is known by every close observer to be very repulsive to the nature and growth of the plant. If possible, the surface of the land should be kept on top, and to effect this a colter should be used first, followed by a Dagon running only to the depth of three inches: this should be the preparation for tobacco land. A turning plow should never be put in a new ground, even up to the fourth successive crop. It now being taken for granted that your land is properly prepared and fertilized, and plants set out, you should scrape the dirt from the tobacco in eight days after planting, if possible, then follow with a shovel plough, giving it a thorough ploughing; after which make a medium sized hill around the plant. This is all the working it requires; if grass or weeds should come up too much, simply chop them out with a hoe.

With this mode of cultivation, and the curing which I shall describe before concluding this article, I have sold in the Danville market, and also in Lynchburg, tobacco that brought \$80, \$90, and \$125 per hundred.

Before topping your tobacco let it run up until you can see the bloom all over the field, then according to the strength of your land, top to twelve and sixteen leaves, after pruning some six inches from the ground.

After the tobacco is sufficiently ripe—and to cure it fine it must not get too ripe on the hill—take a common tobacco knife, and split the stalk within four inches of where you cut it off, and hang it on a stick held by two chaps—this is a nice and rapid way of hanging—take it to the barn as soon as possible, and hang it eight inches apart. Put your fire under it immediately, made of coal—run the

heat by slow degrees up to 115 or 120—then let the fire when it reaches that point go out of its own accord. In some eight or twelve hours after run a slow summer heat until the tobacco begins to yield to the fire with a slight turning of the tails; then raise your heat to 110°, standing four hours, then to 120°, standing a like length of time, then to 130°, standing at this point until the leaf is cured, then you can go up with your heat to 150° and 160°, standing at this point until the tobacco is cured stock and stem. The above is the process, and I believe the only way, to cure a fine white yellow crop of tobacco, speaking as I do from actual experience.

The same process may be adopted with the patent flue, provided you can control the heat as above indicated.

MORE ABOUT TOBACCO FERTILIZERS.

At a recent meeting of the Whately (Mass.) Farmers' Club the subject under discussion was experiments with tobacco, and different fertilizers the past year. The President, Edwin Baldwin, Esq., presented a very fine sample free from rot or sweat, and very desirable leaf, and gave his method of culture as follows:

He applied thirty-two horse loads of farm cellar manure to the acre, and 1,600 pounds of corn meal, the last was applied to a strip of thirty-five rods of ground, and no manure applied to this strip; phosphate in the hill. It was not harvested until after the fourth of September. The meal experiment was wholly unsatisfactory; has no disposition to try it again; considers it not more than half as valuable as shorts for fertilizing effects. Thinks favorably of shorts. Other gentlemen who gave their experiments with meal, were quite as emphatic in its condemnation as a fertilizer for tobacco. Mr. Henry Field gave the result of its use on a strip of ground for seeding to grass, alongside with sea fowl guano, the same value used. When the hay was cut, the portion where the meal was used did not have over one-quarter the amount of hay to the acre. Didn't think he should try it again. The bulk of those present use more or less of superphosphate in the hills. Mr. C. A. Graves used some of the South Carolina phosphate with marked success. It was furnished on the plan of no advantage received, no pay to be exacted. But said after the first three weeks he became satisfied that where it was used in connection with the standard "Russell Coe's" that it was the best, and it continued during the season. Shall use it again in preference to any other if he can get the same. The question then came up in reference to the effects

of these commercial fertilizers upon the crop.— And it was difficult to tell the crop grown in part with them from that grown wholly with manure. This was admitted while they were unsweated.— But when they had been sweated the difference was at once apparent. When tobacco wholly with manure, (sheep or horse,) the tobacco when sweated contained all the elements requisite for a first-class leaf, and would be soft and silky and burn well, but when special fertilizers were relied on, it was liable to be deficient in all these qualities, and the only test was after the leaf was sweated. If then it was all right it would not be wise to denounce the fertilizer used to grow it, provided continued good results were obtained. An experiment was given of growing an acre of tobacco with three (3) tons of shorts and one hundred and fifty pounds of phosphate to the hill, eighteen hundred and ninety-eight pounds of wrappers and seconds were harvested of a fine looking sound leaf, and the fillers and the leaves were broken off when harvested, it was thought would make over a ton of tobacco to the acre. The shorts cost \$75, sowed broadcast and harrowed in with a pulverizing harrow, thoroughly, marked off three feet, drawing chains attached to a long pole; the phosphate strewn on the line of the marks and then ridged. The ground was seeded, and the acre, when the shorts were used, looked the best up to winter; next summer will test the result. The land was a thin, pine-plain soil and in low condition.

EARLY TOBACCO PLANTS.

A correspondent of the Cloverport (Ky.) *Transcript* makes the following very sensible suggestions in reference to early tobacco plants:

"It is well known to all tobacco growers that early plants are a great desideratum. Persons wishing to obtain early plants can do so by the following method: Burn the plant bed in the usual manner, and brush it if desirable, then along the north edge of the bed erect a close plank wall twelve feet high, extending the entire length of the bed. Let the smooth surface face the south, and give it a complete coat of whitewash. (Support it well to prevent its being blown down.) The reason is obvious and philosophical. First, it is a protection against the north wind. Second, the plant bed receives the reflected heat of the sun, which heat, returned to the ground by the whitewashed wall, adds one-half to the direct heat. By the above simple method plants can be brought forward at least two weeks earlier than by the usual mode, and every intelligent planter knows the advantage of an early crop. First, by having early plants you are always ready to take advantage of the tobacco seasons as they occur—an event anxiously looked for by the planter. Second, it is well known that the early crops are always the best; and third, the planter is richly rewarded, as such tobacco almost invariably commands the highest market price."

For the Maryland Farmer.

APPLICATION OF MANURE.

If I were asked to name some valuable mode of applying farm-yard manure which had not been received with general favor, I should at once instance that of manuring in the hill or drill; the progress of which has been slow, for it has shared the fate of many other scientific efforts.

The drill system puts the manure as nearly as possible where it is to do its work. It is there pulverization is needed, it is precisely there plant food is to be used, if used at all.

As the process of evaporation goes on, additional supplies of moisture are attracted to the roots of the plants, to replace that which has passed off into the atmosphere. Where the drill system of applying manure is adopted, the roots of plants are as sure to linger in that mass of manure, as cattle are to linger near a spot of luxuriant feed in the pasture, and the moisture to reach those roots must necessarily pass through this rich compost, dissolving particles of the most valuable fertilizers, rendering them accessible to the wants of plants, to whose use they will at once be appropriated.

The roots or leaves of the plants are in immediate contact with the evolved gases of putrefaction which are readily absorbed as they are generated.

The advantages gained by ridging land for tobacco are manifest to every cultivator; but if the tobacco was cultivated on an unmanured soil the results would be less satisfactory.

A critical examination would show that these advantages were traceable to collecting the manure in the row, on the drill system, rather than ridging the soil in which the crop is grown. However clear it may be proved that manure in a suitable state of decomposition, applied on the drill system, is a cause of the most beneficial results, not only to the crop but the soil; yet nothing but oft-repeated experiments, and the closest observation, will induce the great mass of farmers to adopt the system as a general rule of practice. S. P. WARNER.

RECIPE FOR SOAP.—The *Ohio Farmer* recommends for scrubbing and cleansing painted floors, etc., washing dishes and keeping one's hands soft and smooth, a soap made after the following recipe: Take two pounds of white olive soap and shave it into thin slices; add two ounces of borax and two quarts of cold water; stir all together in a stone or earthen jar, and let it set upon the back part of the stove until the mass is dissolved. A very little heat is required, as the liquid need not simmer. When thoroughly mixed and cooled, it becomes the consistence of thick jelly, and a piece the size of a cubic inch will make a lather for a gallon of water.

For the Maryland Farmer.

A PRICELESS RECEIPT FOR FARMERS.

TRANSLATED FROM THE FRENCH BY E. M.

Every farmer who has to fence his land knows too well how quickly posts planted in the earth become rotten, especially in a damp spot. All of them will welcome the following process to prevent rottenness, a process as wonderful in its effects as it is simple and almost costless. It is taken from "*Le Bien Public*," of Dijon, France.

Take linseed oil, boil it, and mix it with charcoal dust until the mixture has the consistence of an ordinary paint. Give to the posts a single coat of the mixture or paint before planting them, and no farmer, even living the age of patriarchs of old, *will live long enough* to see the same posts rotten.

"Some years ago I discovered the way of rendering wood more durable in earth than iron itself," says the author of the communication, "but it seemed to me so simple, and so inexpensive, that I did not think it worth while to make much ado and fuss about it. Posts of *soft* wood thus prepared were removed after remaining *seven years* in earth, and were found as sound as when they were planted. The only precaution to take is to use only *well dried* posts before covering them with the charcoal paint."

(The above receipt is certainly cheap, and seems to be well worth the trial. If what is said of the efficiency of that simple and cheap (about two cents per post) process, be only half true, certainly it would save yearly millions of dollars to the farmers and telegraph companies. For it is said that the farmer, even in his teens, who will plant posts having received a coat of this *Perpetuity Post Paint*, *will never live long enough to see the same posts rotten*.—Trans.)

THE HULL CORN.

A correspondent in *The Farmers' Club*, Oxford, Pa., gives the following method:

Take one quart of strong lye, prepared by pouring warm water upon a peck or more of ashes; add two quarts of boiling water to it, and put in the corn; let it boil until the hulls begin to start, which you can determine by taking out a few kernels and washing them in cold water. Skim out all the corn; rinse it in two or three waters; put into cold water, and let it boil up; turn off that water so as to extract all the lye; fill up with boiling water, and cook for four hours slowly; add salt to your taste; let it boil half an hour more, and serve. It must cook a great while to be palatable. S. O. J.

An old dog cannot alter his way of barking.

LIME FOR AGRICULTURAL PURPOSES.

At recent meeting of the American Institute Farmers' Club, the following on applying lime, from R. Crothers, of West Charlton, New York, was read, and highly approved by a number of the members who commented on it. F. D. Curtis, said: "The writer of this letter is one of our most prosperous and intelligent farmers. His farm is very productive, and he tells how he made it so. Dr. J. P. Trimble, said: "The letter just read about lime in agriculture is one of the most valuable communications I remember to have heard here. When experiments have been so carefully made by a practical farmer they are invaluable, and the results are so satisfactory that I hope thousands who are toiling on poor farms for poor crops will wake up at once to the conviction that something must be done. I could detail a similar experience from the use of lime among the farmers in my own native county in Pennsylvania. I could name large sections of New Jersey where the use of lime has been equally satisfactory. But still there is one thing to be considered. Is lime useful on all soils? Mr. Crothers says his land abounded in lime-stone quarries. Those sections with which I am personally familiar are lime-stone neighborhoods. Who knows positively that where the geology is different that burned lime is as useful? As to liming the land destroying insects, that is not proved. If these insects fed upon the soil, and accidentally took too much of the lime, we do not know but they would be killed, but they would be more foolish than most insects if they selected poison where there was so little and rejected food where there was so much. No. These insects feed upon vegetable food, and many of them on one species of vegetable alone, and nearly all are very much restricted as to food. The rose slug will starve on any other plant. The apple-tree caterpillar will not eat a pear leaf. As land becomes rich by lime and manure the grasses are changed. The blue and green grasses may not be the appropriate food for cut-worms and wire-worms." Mr. Crothers, writes:

In the west part of Saratoga County for the last half century lime for farming purposes has been quite generally used. The soil of our section is loam, interspersed with coarse sand, and sometimes small portions of clay. We are what might be called small farmers, the amount of land owned by each cultivator varying from fifty to 500 acres, and would average about 100 acres to each farmer; and we generally pursue what is called a mixed husbandry. We have valuable quarries of blue lime-stone, and several lime-kilns, which hold from 400 to 600 bushels of lime.

VALUE OF LIME.

I came into possession of the farm that I now occupy in the Spring of 1831. It had been rented

to various individuals for eighteen years; the soil impoverished by continual plowing could not raise 500 pounds of hay to the acre. The second year I put on 250 bushels of lime upon two and a half acres, and upon the other part of the field of two and a half acres, forty loads of barn-yard manure. On the 15th of September, after the ground was prepared, the quick-lime was scattered upon the top, and also the manure was spread upon the other half of the field, and then sowed with wheat. The crop when harvested from that part of the field manured from the yard, was altogether the best. The next year planted corn upon the same field, and upon that part of the lot that had been limed, the crop was one-fourth greater than upon that part that had been manured. The next year sowed with barley and seeded. On that part of the field limed, the straw grew strong and bright, and in no way injured by worms; the grain was heavy and bright, and one-sixth more bushels than upon the other part of the field; and for a number of years the difference was decidedly in favor of the limed part. Soon after I built a lime-kiln upon the farm, and every year up to 1872, have used from two to four hundred bushels of lime.

THE BEST WAY TO USE LIME.

I have used it in various ways, but I think the correct way is to draw from the kiln in the shell, throw in a pile in the field, and let it remain until it is all slacked, then, after the ground is plowed and harrowed, load into a wagon, and with a shovel scatter as evenly as possible, at the rate of fifty to seventy-five bushels of stone lime to the acre.

LIME DESTROYS INSECTS.

While many of my neighbors are complaining of the destruction done by worms I have not lost one bushel of corn, or any other kind of grain in twenty years by worms. On land that has been well limed the crops will not be disturbed by such troublesome customers as grubs or wire-worms.—We consider it very valuable as entering into the straw, keeping the clean, bright color, and also heavier grain.

IS LIME DURABLE?

From the closest observations that I have been able to make in the use of lime for forty years, I think the beneficial effects have been seen (upon land that has had fifty bushels to the acre) from sixteen to eighteen years. It enlivens, changes, and warms up cold land, and is peculiarly well calculated to produce a large crop of clover—and after that crop I never fail in getting a good crop of corn.

WILL LIME PAY TO USE UPON THE LAND?

I have sold a good article of stone-lime at the rate of \$10 per 100 bushels at the kiln; but now, with the increased amount of wages to laborers, it cannot be afforded (burned with wood) at less than \$18 per 100 bushels. But at that rate, taking into account the various beneficial effects, and the great durability of lime in the soil, it cannot be doubted but that it is far cheaper than any artificial manures that can be obtained in the market. The most economical way is to take muck and make a compost. Take two parts of good vegetable muck

with one part of unslacked lime and throw in a pile, and soon the lime will warm up the muck; then draw and spread just before the last harrowing. The same land that I formerly got only about 600 to 1,000 pounds of hay to the acre from, I now can, on an average, get two tons. I think the increase is owing to the use of lime.

FORESTS AND DROUGHT.

T. S., of Pa., writes the *Scientific American*, to say that it lies with us to decide whether our continent shall retain its present luxuriance and salubrity to remote ages or not. He regrets the rapid diminution of our forests, and the decrease of moisture in the interior parts of the country; and concerning the latter point he states that, in some parts of the country, where five feet of snow usually fell in a year, there is not now five inches:

"Sardinia and Sicily, once the granaries of Italy, have suffered the penalty of their thoughtlessness in exterminating their forests. Two thousand years ago, those lands were celebrated for their wonderful productiveness, and were said to be the most beautiful in the world. In 1800, Humboldt visited Venezuela, South America, and was informed by the natives living in the valley of Araguay that they had noticed, with great astonishment, that a lake which lay in the middle of the valley had decreased in volume every year; the cause of this is clearly traced to the felling of a great number of trees which grew on the surrounding mountains. In Hungary the periodical droughts are universally attributed to the annihilation of the forests. In Cairo, Lower Egypt, a great many years ago, rain fell but seldom, only once in three or four years; but since the time of Mohammed Ali, twenty to thirty millions of trees have been planted, and the result is now that the people have from thirty to forty rainy days every year. Surely these few of the many examples are warnings sufficient to put us on our guard."

POISONOUS CHARACTER OF MOLD.

It is well known that each kind of ferment is capable of producing itself, and communicates to the new substance the tendency to break up into bodies of the same character as those into which it is itself resolved. This is true of lactic, acetic putrefactive fermentation as well as of those attending the successive changes of starch into dextrine, sugar, alcohol and carbonic acid. When we now take into account these doctrines, it is not difficult to conceive that the ferments and their yeast plants, having escaped destruction by the heat of baking, may produce ill effects when they reach the general circulation. As a class microscopic fungi are poisonous. The form of mold that appears on cheese has long been recognized as a malignant poison. The fungus that appears on rye and its ill effects are well known. The wheat bread distributed among the troops in Paris, in 1841, was found to contain in all its crevices a minute red lichen. The rust of wheat and the smut of corn are varieties of these poisonous fungi.—*Hosford*.

A wise man is a great wonder.

CAN WE GROW ONIONS FROM SEED?

In reply to a correspondent, the *Farmer's Club*, Oxford, Pa., gives the following on raising onions from seed :

Get genuine seed from some reliable seedsman, who will send seed of last year's growth. Don't imagine that remnant seed left over from some past age, or that seeds sent out by irresponsible firms, will ever raise any onions the first year.

Have the ground in excellent condition, well tilled in the fall and early in the spring. Use wood ashes as a fertilizer, with a good supply of composted manure, and sow the good seed early in the spring.

Use the same spot of ground for the onions every year. For onions, unlike most other crops, will not exhaust the soil, and they will grow better and larger each year, if but a little richness is added, and if the ground is kept free from the autumn weeds.

Phosphates are good to start the plants, but a heavy dose may ripen the crop too early in the season. Liberal and continued weeding and hoeing during the whole season of growth, is of the utmost importance, so that the dry weather may not hinder the growth.

By strict attention, the largest of onions can thus be raised the first year, at double the profit from buttons or sets. And the onions thus grown are sweeter, less strong, and more salable, too.

LIME FOR PEACH TREES.

The Hon. John M. Clayton, of Delaware, who who was a large and successful peach grower, found lime the best manure he ever applied to peach trees. He scraped the dirt off and applied from three to a dozen shovelful of lime fresh from the kiln to the naked roots. It killed the grubs and favored the growth of fruit. The editor of the *Plow* said, "certainly we have never seen more healthy looking trees than those of farmer Clayton." Sometimes one can kill the larvæ of the curculio under peach trees by a heavy dressing of lime recently slaked.

To remove other insects mix equal parts of sulphur and copperas and apply on the naked roots of apple, pear, plum and peach trees; scrape off the old bark and put the mixture in the fork or crevices. One must fight all depredators in the orchard and garden.

Children are uncertain comforts: when little, they make parents fools, when great, mad.

An idle brain is the devil's own workshop.

FACTS ABOUT ROOTS.

It is said that in sandy or loamy soil, the roots of trees have been found to penetrate to the depth of ten or twelve feet; and the roots of the Canada thistle have been traced six or seven feet below the surface. Wheat, if planted in a mellow, rich soil, will strike its roots three feet downward, and elongate much further horizontally. The roots of oats have been discovered at eighteen inches from the stem, and the long thread-like roots of grass extend still further. The roots of an onion are so white, that in the black mould they can be readily traced, and in a trenched or spaded soil, they have been followed to the depth of two feet. The potato throws out roots to the distance of fifteen or twenty inches; and the tap-rooted plants, turnips, beets, carrots, etc., independent of perpendicular roots, spread their fibers to a distance which equals if it does not exceed, the potato. Now these roots are all essential to the fullest development of the plant. If it be true, as we believe, that the principal feeding roots lie near the surface, it is equally true that the deep roots have their office, and give the plant a hold on life, especially in time of drought, that it could not otherwise have. For tap-rooted plants, a deeply pulverized soil is particularly necessary.—*Rural Alabamian*.

LIQUID EXCREMENT.

How strangely we overlook the value of the liquid excrement of our animals! A cow, under ordinary feeding, furnishes in a year 20,000 pounds of solid excrement, and about 8,000 pounds of liquid. The comparative money value of the two is but slightly in favor of the solid. This statement has been verified as truth over and over again. The urine of herbivorous animals holds nearly all the secretions of the body which are capable of producing the rich nitrogenous compounds so essential as forcing or leaf-forming agents in the growth of plants. The solid holds the phosphoric acid, the lime and magnesia, which go to the seeds principally, but the liquid, holding nitrogen, potash and soda, is needed in forming the stalks and leaves. The two forms of plant nutriment should never be separated or allowed to be wasted by neglect. The farmer who saves all the urine of his animals, doubles his manurial resources every year. Good seasoned peat is of immense service to farmers, when used as an absorbent, and the stalls for animals should be constructed as to admit of a wide passage in the rear, with generous room for peat, to be used daily with the excrement.—*Rural Alabamian*.

HARROWING WHEAT.—One of the editors of the *Country Gentleman*, who lives in a wheat growing district of New York, says that he finds it beneficial to harrow wheat in the spring with a light harrow. He does this several times, and till the wheat gets a foot high. A light tillage implement should be made and used that will stir the ground nicely between the rows of wheat in the drill; giving the plant the advantage of cultivation and weeding, if any weeds are seen.

A farmer should not permit cockle, cheat, nor any other plant than wheat to grow to the injury of the crop. Clean cultivation is more important than many suppose.

MR. JILKS ON THE PORK QUESTION AND FARMERS' CLUBS.

PAPER NUMBER 3.

Messrs. Editors Maryland Farmer:—I hope the smart wuns among your reeders that don't need any advice from me, will jes hand my sentiments over to them that does, fur ef I'm not mistaken, there's a heap o' farmers that *might* larn a leetle about a good many things that's writ on in your paper, among which is the one that's ahead of this artikul—pork. I am aware farmers is bro't up among hogs, it don't take long to ascertain that fact, but a man kin be among his own kin a good while, and then not find 'em out. I was down to a sale a short time ago, and after all the ole pots, and kettles, an' 'krokery, and trumpery, an' ole harness had been sold off, the crowd surged down to the pen to help git in the hogs; yere they cum across the field, a dozen boys a hollerin', as many dogs a yelpin', and it a race between the dogs and hogs—there's one thing, Mistur Editur, that kin be said about the native hog: he's got good wind—and when they got 'em in, the hogs showed their education and instinct by beginning an inspection of the fences, to see where the weak spot was; it looked so intelligent. Some of the critters looked puty good, and finally one was put up which was recommended as "ported stock, improved breed." Ole Kemp Saxster, a bar-room veteran, who hadn't paid any taxes fur twenty years, and went about doin' other people's work to show how well he could do his own, and how much he knew all about it, was there, and when the proprietor spoke about improved breed, sez he: "that's all in my eye; the breed 's in the korn house; ef yer want a 'proved breed, boys, pile in the korn an' you'll git it." I've heerd about these 'proved breeds o' hogs fur forty yeer, and mi pinion iz, giv' me the korn an' I'll make the breed," and with that the crowd give a laff which appeared to throw all the argument on Kemp's side of the question. I was powerful disgusted to see so much ignorance, and to see the opinion of such a character pass fur authority on any question, let alone sich a mighty one as pork, that lays the fat on our juvenile ribs in school-boy days, and comforts our declining yeers with flapjacks and saggases. Its kind a impulsive with me to take the right side, ef I'm the only one to do it. I jumped up into an' ole feed box, and sez I, "do you mean to say there's nothin' in the breed ov a hog to make um fat easier? do you attempt to nullify by a single assertion the experience of every man that ever owned a hog, and was intellectually qualified to eat him?" This 'peared to silence ole Kemp, an bring the crowd a little on mi side.—Did you ever notice, Mistur Editur, how quickly the tide of battle changes when the bright blade of a champion of truth flashes in the combat? There's allers plenty to do right ef you can find a man fit to lead 'em; an' I giv' it to 'em agin: "don't you always see a difference in the same litter of hogs," sez I; "isn't there allers one or two that beat all the others, and isn't there always a difference in yer tobacco, and don't you turn out the biggest and finest heads for seed, and isn't there always a difference in cabbages, and don't you set out the best stalks fur seed, and don't you pick out the best

calves, and everything else to raise from, and why not do the same thing with hogs, I'd like to know? Well, that's jes what has been done; the men that git up these new breeds pick out the best, and breed from them, and then pick out the best and breed again, and finally they so fasten peculiarities upon the race that it will perpetuate those good qualities, and the farmer that shuts his eyes to the improvement which has been effected in animals, and everything else relating to his calling, will back down from the front rank, and by and by work fur somebody smarter than he is, fur you might as well try to raise good wheat from sickly smutty, worm-eaten wheat seed, or good cabbages, or anything else from the worst possible seed you can find, as expect to have hog-stock that'll pay from the helve-legged, cat-hammed, quill-bellied, bottle-snouted bar-sheaves we've got around the country so plenty," and I got down, while the fellers hollered, "give it to 'im Jilks," as though they'd always thought so too, and when I looked for ole Kemp, I seen 'im behind the 'bakker house, with his elbow higher than his head, takin' sumthing that was *his* argument.

Now, I am under the impression the average of the hogs killed in our section is much less than 200 pounds: we feed an animal through the fall, winter, spring, summer, fall, and part ov the winter again, and get two hundred pounds of dressed pig; let us see if there isn't sumthing in the breed.

I have in my mind a killing on the old homestead of eight-month pigs which ranged from 245 to 265 pounds per pig.

I have in mind another killing in the fall of late spring pigs that averaged over two hundred pounds. And here's one of a pure bred Essex that dressed 590 pounds, and another, same breed, 400 pounds, and a Berkshire, 526 pounds and—note well—only six or eight per cent of ofal, for when you put 500 pounds of one of those hogs away you've got 20 or 30 per cent more meat than in the same weight of the native trotting stock, and if I remember rightly one of Mr. Harris's killings averaged over 400 lbs., and didn't Col. Bowie write some time ago about the Poland or Magie breed, that would dress 1,000 pounds? If we git a cow that'll go 600 the neighborhood *Herald* comes out with large type, leaded and displayed to announce the fact. Nothin in the breed! It's a great pity the Legislature don't prohibit the keeping of scrub stock, and we would soon see that *there's everything in the breed*, and a few farmers could club together, buy a boar, and and put away more meat in the fall from spring pigs than they now do from 15 and 18 months hogs, saving 8 or 10 months keep of the animals, and two or three soys wintered over would be enough for most farmers, and I bleeve farmers 'll get their eyes open after a while.

Yours, hopefilly,

EZEKIEL JILKS.

SASSAFRAS ROOTS.—The Fredericksburg (Va.) *Star* says J. G. Hurkamp, of that place, has received an order for fifty tons of sassafras roots, to be shipped to Bremen, Germany. This article of commerce has only recently been developed in this latitude, and will no doubt become as extensive as the sumac trade, in which, says the *Star*, at least one hundred thousand dollars per annum is now expended here.

Contempt is the sharpest reproof.

THE
MARYLAND FARMER,
A STANDARD MAGAZINE

EZRA WHITMAN,
Proprietor.

Col. S. SANDS MILLS,
Conducting Editor.

Col. W. W. BOWIE,
Associate Editor.

OFFICE—145 WEST PRATT STREET,

Opposite Maltby House,

BALTIMORE.

D. S. CURTISS, Correspondent and Agent.

BALTIMORE, MAY 1, 1873.

TERMS OF SUBSCRIPTION.

One dollar and fifty cents per annum, in advance.
Five copies and more, one dollar each.

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Cards of 10 lines, yearly, \$12. Half yearly, \$7.
Collections on yearly advertisements made quarterly, in advance.

Special Contributors for 1873.

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Barnes Compton,
Dr. E. J. Henkle,
John Merryman,
Luther Giddings,
Ed. L. F. Hardestle,
D. Lawrence,
John Lee Carroll,

John Carroll Walsh,
Daniel C. Bruce,
Augustus L. Taveau,
John Feast,
John Wilkinson,
John F. Wolfinger,
C. K. Thomas,
Robert Sinclair,

CAUTION TO FARMERS WHO TAKE
STOCK TO PASTURE.

To the Editors of the *Maryland Farmer*:

According to a recent decision of Judge Garey, of the Court of Common Pleas of Baltimore city, farmers taking horses or other kinds of stock to pasture, are responsible for the value of the same to the owners, if they are stolen or stray away. I recently made a test question before the said Court, and was mulcted for all court charges, and the value of the horse stolen.

I feel it a duty I owe my brother farmers to inform them as to this decision, as a warning, and that they may avoid the responsibility by specific agreement in the future.

SAM'L SUTTON.

St. Dennis, Baltimore Co., Md.

CHOICE FLOWER SEEDS.

The Proprietor of the *Maryland Farmer*, received with much pleasure from Messrs. Briggs & Brother, Rochester, New York, assortments of fine flower seeds, bulbs and tubers, embracing many of the finest varieties. This house has so well established a character for the reliability of its seeds that there is a great satisfaction in sowing them. They have been placed in the hands of the gardener at Ivy Hill, and the Proprietor would like to have Messrs. Briggs & Brother, visit him during the coming season and view for themselves how well their seeds flourish in Maryland soil, and how highly they have been appreciated.

LIME AND HEN MANURE FOR CORN.

We have been asked, how much of this fertilizer—the droppings from the hen-roost, dried and intermixed with lime—ought to be, or in our opinion, is sufficient for a hill of corn. We think a half gill would do well, but a gill would be better. It is a powerful and heating compost, as good for corn, as the best guano, and when dropt in the hill ought to be slightly covered with dirt, so the corn will not come in direct contact with it. We think it would be better to mix with the lime and manure, an equal quantity of rich dry earth; let it remain in a pile a few days, and then drop one pint of the mixture in a hill.

MAMBRINO HAMBLETONIAN—The owner J. Howard McHenry, Esq., sent us a well executed photograph, also the pedigree and description of this fine horse. His size, style and qualities united with the many crosses he has of the Messenger blood, and his near relation to many of the best trotters of the day, renders him a valuable acquisition to any neighborhood. We congratulate the breeders of fine stock about Pikesville and Cockeysville, Baltimore county, where he will make the present season, upon so rare an opportunity to improve their roadsters.

FINE APPLES.—We received from R. Colton, Esq., of St. Mary's, Md., beautiful specimens of what he calls Spitsbergen, and also of that he terms Lady Apple, but which were designated, when lately on exhibition, by the "*Potomac Fruit Growers*," as "fine specimens of *Tewksberry Blush* and *Roman Stem Apples*." When such Doctors disagree, we will not presume to decide, we only know both sorts were very beautiful to the eye, and delightful to the taste, no matter what they were called.

Beauty is potent, but money is omnipotent.

CANNING FRUIT.

This industry has grown into gigantic proportions and is still on the increase. It seems to us that a company of farmers could be formed at some of the villages that abound along our railroads, for canning fruits and vegetables of their own raising and those grown by their neighbors. This would furnish a home market for thousands of dollars worth of such articles that now are totally lost for want of a market. The canning business is very profitable and capitalists would no doubt join these neighborhood canning associations. The canning could be done cheaper in these rural villages, and the articles put up would be likely to be better, because they would be all freshly gathered, and not affected by long transportation. So perfect has this process of preserving fruits and vegetables become, that they can hardly be distinguished from those when in season, and fresh from garden or orchard. The demand is in full keeping with the supply and ahead in some things at some places, for there is now a scarcity of tomatoes in Baltimore, and prices rule uncommonly high, notwithstanding the great quantity put up last year.

To show the importance of such factories at points along the railroads, and the value of these establishments to the farmers in their vicinities, we give an extract from the letter of a correspondent to the *Maine Farmer*, speaking of the canning factories of Baxter & Davis, on the Maine Central Railroad, exclusively devoted to canning Sweet Corn:

"At Gorham, is located one of Messrs. Baxter & Davis' Sweet Corn factories. They own five others, located one each at Windham, Casco, Cumberland Mills, Scarborough and Deering. The farmers receive three cents per pound for their corn, which is weighed after being cut from the cob at the factory. As high as \$125 per acre has been received by the raisers, but \$75 may be considered a general average. The stalks are very valuable as fodder, and these factories are considered a great advantage to the agricultural communities where situated. Over two million cans of corn and succotash were put up by this firm last season. J. Winslow Jones, at his factories, put up as much and probably more."

By these means, villages are built up and the surrounding country has a new and convenient market for the many trifles now worthless and useless to owners. Enterprise would be stimulated. Employment given to those that at present are idle, and suffering perhaps for want of employment.—Farmers should combine and put in operation these hidden mines of wealth and prosperity.

PETROLEUM AND COAL OIL.

Is one of the most useful and valuable discoveries of the age. It should be kept on hand, by every housekeeper and farmer. It is always useful and it may be required at any moment. Petroleum is invaluable to the farmer for curing many diseases to which his stock is subject. The oil cures neuralgia, relieves at once, and cures sprains, cuts, bruises, burns, wounds, ect., ect. It is a perfect cure for "scratches" in horses, and also for "founder." It kills vermin, of all kinds on stock. It is a good purgative, safer than turpentine, and altogether a safe and painless remedy. It has been known to take away the dreadful pain, and reduce the swelling of a limb affected with rheumatic gout in forty-eight hours. Some assert that it has cured chills and fevers, taken every morning a teaspoonful at a dose, for two or three mornings, when quinine had failed.

The manger kept painted with petroleum will cure, it is said, "*crib-biting*" horses of that bad habit. These facts should be remembered and the prescription tried.

BIG GOURD—BROADCAST AND DRILLING.

HOWARD COUNTY, April 1st, 1873.

Messrs. Editors:—I have just come across a big thing in a gourd raised by one of your subscribers, J. K. Gaither, Esq., of Roxbury Mills, in this county. This gourd was about two feet high, fifty-one and a half inches in circumference, weighed forty-five pounds from the vine, and will hold seven and a half gallons. The seed was obtained from J. F. Bowman, of Ohio, who I think advertised his seed last year in the *Maryland Farmer*. I will mention in this connection that the same gentleman raised last year twenty-five bushels of wheat per acre by *broadcast seeding*. The farmers around Roxbury Mills, (among whom are Judge John A. Dorsey, Dennis P. Gaither, Esq., County Commissioner, the successful Dr. J. H. Wolfe, et. al.,) do not all concede that drill seeding is best for the crop. The farmers and farms of this section are among the best in the whole State, and I give their opinion for the benefit of your readers without discussion. My individual preference, all things considered, would be for drilling. JUDEX.

ACKNOWLEDGMENT.—Messrs. David Landreth & Son, Seedsmen, of Philadelphia, will accept our thanks for the large package of choice garden and flower seeds, they were kind enough to send us last month as a friendly and complimentary present.

From Wheeler, Melick & Co., Albany, New York, New York Agricultural Works, Manufacturers of Railway and Lever Horse Powers, Threshers and Cleaners, Horse Hay Forks, Saw Mills, &c., &c.

AGRICULTURAL FAIRS.

ALLEGANY COUNTY (MD.) FAIR.—A meeting of the Board of Managers of this Society was held recently in Cumberland to make arrangements for the coming fair. The president, Alfred Spates, stated that during a recent visit to Baltimore he had an interview with President Garrett, of the Baltimore and Ohio Railroad, who had assured him that every facility would be extended to persons desiring to ship cattle, horses machinery, &c., to this city for exhibition at the next annual fair. Mr. Garrett further stated that he would visit the exhibition and interest himself in its success. He is the possessor of some very fine Alderney cattle and a stud of Arabian horses, all of which he will send here next fall for exhibition. Mr. Garrett will also request President Jewett, of the Central Ohio Railroad, to exhibit here a number of fine cattle owned by him.

KENT COUNTY (MD.) FAIR.—It is announced that the next annual fair of the Worton Club (Kent Co. Agricultural Association, No. 1.) will be held at Worton Station, commencing on the 30th of September, and continuing three days. The premium lists are already made out; and catalogues giving full particulars will be printed and distributed at an early day. Any information concerning the fair can be obtained by addressing the secretary, Dr. A. E. Vannort, at Hanesville.

STILL POND AGRICULTURAL SOCIETY.—The farmers of Still Pond and surrounding country in Kent county, Md., recently organized an Agricultural Society for the advancement of their interest. It is contemplated to hold a Fair sometime next Fall. Col. George Gale is President. From the character of the gentlemen composing the association we may expect to hear favorable reports of their progress.

DEER CREEK FARMERS' CLUB.—From a correspondent we are pleased to learn of the formation of a Farmers' Club at Churchville, Harford County, Md., on Saturday, April 5th, last, composed so far of fifteen members, and have adopted a Constitution and By-Laws for its government. The following gentlemen were elected officers for the year: *President*, T. H. Archer; *Secretary*, Albert Neilson; *Treasurer*, Thos. A. Hays. We wish them all success.

AGRICULTURAL COLLEGE.—At the annual meeting of the Stockholders of the Agricultural College, held last month, the following gentlemen were elected Trustees for the ensuing year:

Allen Bowie Davis, Montgomery County.
J. Howard McHenry, Baltimore County.
Allen Dodge, District of Columbia.
James T. Earle, Queen Anne's County.
Henry D. Farnandis, Harford County.
Edward Lloyd, Talbot County.
Wm. D. Bowie, Prince George's County.

Dr. ELI J. HENKLE, of Anne Arundel County, who had been a trustee, was relieved of that position, in order that he might accept the chair of hygiene and physiology.

THE FOURTH ANNUAL FAIR of the Agricultural and Mechanical Fair Association of the Cherokee Country of Georgia and Alabama will be held at Rome, Georgia, on 8th of September, and continue during the week. Thos. J. Perry, Secretary, Rome, Ga.

IOWA.—The Iowa State Agricultural Society will hold its Twentieth Annual Exhibition on September 8, 9, 10, 11 and 12, at Cedar Rapids. John Scott, Nevada, President; J. M. Shaffer, Fairfield, Secretary.

NORTH CAROLINA.—The North Carolina Agricultural Society will hold its Thirteenth Annual Fair in the city of Raleigh, Oct. 13, 14, 15, 16, 17 and 18. Col. T. M. Holt, President; R. T. Fulghum, Secretary.

INDIANA.—The Twenty-First Annual Exhibition under the auspices of the Indiana State Board of Agriculture will be held at Indianapolis, Sept. 10 to Oct. 10. Hon. John Sutherland, President; Alex. Heron, Secretary.

NEBRASKA STATE FAIR.—The 7th great Nebraska State Fair will be held at the city of Lincoln, from September 1st to 6th, 1873. Sixteen Farms of 40 acres are offered as premiums—and \$10,000 in cash. Daniel H. Wheeler, Secretary, Plattsmouth, Nebraska.

SLAUGHTER CORN.

A number of farmers of Rappahannock county, Va., unite in recommending this corn to the public for "its superior excellence for the remarkable average length of the ear, its weight and beauty, the smallness of the cob, highly favorable to its early maturity and safe housing, large growth of stalk, bearing in good land two good ears usually, and thereby increasing the yield over ordinary varieties per acre from one to three barrels. It is an unquestioned fact that the best crops of corn made in this county during the past years of intense drought have been made from seed of this corn."

Persons desiring to obtain seed of the "Slaughter Corn," can do so by applying to the agents, Henry C. Yates, Esq., Warrenton, Fauquier county, Va.; to Miller, Waite & Co., Culpeper Court House; James Lane, Green & Co., Fredicksburg, Va.; John N. Bell, Esq., Winchester, Va.; Andrew Aldridge, Charles-town, Jefferson county, Va.; J. Brown & Bros., Front Royal, Va. The grain will be delivered (shelled) in sacks of two bushels, warranted a pure article, at \$2 per bushel.

J. Howard McHenry's Sale.—Will be offered at Public Sale, at (THREE TUNS) Daniel Cooke's Stables, corner of Paca and Pratt streets, Baltimore, on Thursday the 15th day of May, at 10 o'clock, two Imported Jersey Bulls—one or more Jersey Bulls—from 15 to 20 grade and native Cows and Heifers, many of them in calf by a pure Jersey Bull; and a number of pure Berkshire or crossed Berkshire, and Essex Pigs. We call the attention of those interested to this sale, as affording them an opportunity to secure good stock. Catalogues will be issued early in May. Address F. W. Bennett & Co., Auctioneers, Baltimore.

THE Boston Journal of Chemistry declares that zinc is at least as virulent and fatal a poison as lead, its salts, when taken in small quantities, producing nausea; larger doses cause vomiting, with violent retching and cerebral distress. Some painters are poisoned by zinc paint, and suffer colic similar to that caused by lead. Water in contact with zinc or "galvanized" iron pipe, is charged to a greater or less extent with the chloride, the protoxide and the carbonate of zinc—all poisonous to those who use the water.

"OLD KENT."

RIVERSIDE, April 10, 1873.

To the Editors of the Maryland Farmer:

Professor N. B. Worthington, of the Maryland Agricultural College, in the April number of the *Maryland Farmer*, congratulates himself, and makes known to your numerous readers, his extraordinary benevolence; and the great pleasure he takes in contributing to the happiness of his fellow man, when it costs him nothing to do so. "P-r-o-d-i-g-i-o-u-s!" what a wonderful head the Professor must have! It would be a study for a Phrenological College! A whole bump of benevolence; no room left for any other organ.

This effort of his to contribute to the pleasure and happiness of his fellow man, many of your numerous readers can avouch is, without much cost of "investigation," either of "Old Kent" or myself. "Old Kent" is thankful that he has been spared to complete a life of three-score years, whilst I, who have great cause of thanks for many things, have yet to look and hope for that eventful day, and, though subject to many of the ills of flesh, I am pleased to announce to the Professor that my toes are sound, and that nothing in my habits will prevent their use, either in a joyous dance, or, in an aggressive movement, if roused by wrongs or injuries. Of "Old Kent" I have no knowledge; he seems to have aroused the Professor, who, in his excitement, has "shot his arrow o'er the house," but has not "hurt his brother." Now, Messrs. Editors, as I desire to rest in peace and quiet, under my own vine and peach tree, and as I do not have to wait until the next day for a sober thought, I will say to you, that I regret you should have allowed the Professor to make this blunder, and I will conclude with this advice of Davy Crockett:

I leave this rule for others when I am dead,
Be always sure you're right, then go ahead.

Very respectfully, yours, EDWARD WILKINS.

We publish the above reply of Col. Wilkins, as he seems to feel it to be his due; yet we regret that he has viewed the matter so seriously. It perhaps was our duty to have corrected the error Mr. Worthington was laboring under as to the author of "*Old Kent*," but we looked upon the whole matter as a harmless joke between devoted friends of agriculture, and felt sure that there lurked no malice or unkindness in the spicy joust—we never dreamed that a single arrow would be suspected of being dipped in poison. But as the matter seems to have provoked unpleasantness, we must stop its further discussion in our columns, as all personalities are disagreeable to our readers, and foreign to the purposes of our journal.

Bulletin of the National Association of Wool Manufacturers—For January and March, 1873. Edited by John L. Hayes, Boston, Mass. This number contains among other papers, Horace Greeley as a Political Economist—Notes upon Indigo, Cotton Culture and Cotton Manufacture in the United States, as related to the Tariff—South of the Potomac—Industrial Miscellany, &c., &c. Price one year, \$4.

For the Maryland Farmer.

MANUAL LABOR AT AGRICULTURAL COLLEGES.

* * * * *

As to the matter of how much bodily work a boy may do while he is being educated at college, it has been very much discussed and opinions differ materially. As to the garden work and so forth done, it is not improbable that our boys did as much, for I think there was not a crop of garden or field last year, that they did not bear a part in. A hundred boys may do a good deal of work and none of them be very greatly tasked. But for digging up and overturning "a multitude of useless trees," and digging and laying drains, however it may be valued as a part of college training in Massachusetts, it is not, in my opinion, to be imitated here. Our farmers do not send their sons here to be made grubbers and ditchers, or to become trained laborers of any sort. Very many of them get about as much of that sort of experience at their homes as they want, and learn it better than they are likely to do here. They are here on expenses that the father can, in many cases, ill afford, and the wish is to have them make the most of their limited time in learning what can be learned only at college. They want to learn science as much as they can, and the application of principles so far as it is practicable; they want to learn their own good English language, to read and speak and write it well, and to be introduced into the glorious field of its literature; they want to learn some history, and especially to learn how to study it; some want to learn Latin, many German and French; all want to learn arithmetic and mathematics to greater or less extent. They want to have their minds taught and trained and disciplined, that they may be fitted to do head work and raised above the condition of bodily laborers; they want to become intelligent, reasoning, thinking men. Now, a growing boy, and especially a studious boy, must have play and fun and frolic, and to talk of substituting labor for this is nonsense. Every instinct of his boy nature would rebel against it justly. How much time then, is it to be supposed that a boy of sixteen, seventeen, or eighteen years can give to daily labor with profit, without at all interfering with the special work for which he comes to college? I do not mean to say that some hours work a day are incompatible with study, but that so much time and the fatigue consequent on labor would seriously hinder the accomplishment of what almost without exception the parent wants his son to do in a limited time.

Let a boy be encouraged to do any work he may have a fancy for; give him a plot of ground, if he will, to plant and till for himself in flowers and fruits; teach him how the plants feed and how they grow; how they are propagated by cuttings, by grafting, by budding, by offsets, and why and when these methods of bud propagation are preferred to propagation by seed; let him have the opportunity of seeing the management of a first rate dairy, supplied by cows of the best breeds, cared for in the best manner; let him see daily the best stock, the best implements, the best farm and garden management, with fruits and flowers, and whatever makes country life useful and attrac-

tive; familiarize him with them, interest him in them, instruct him in them, and insensibly, almost without labor, without disgust, his mind absorbs thoughts and images of useful and beautiful things that have not at all interrupted his more urgent work. In his literary studies, get him interested in the admirable rural literature which so abounds in our noble English language. One of our greatest masters of English, Dryden, has translated the most finished work of the most accomplished Roman poet, the *Georgics* of Virgil. Let it become a reading book in our Agricultural Colleges, and be at once a study in the most elegant English, and the source of a thousand interesting thoughts in agriculture, while it shows how our pursuit was prized and honored by the wisest men of the most wonderful people the world has yet known.

Now, in these thoughts I am not speaking for our Agricultural College, nor saying that this is just what we are doing. I wish to indicate my own opinion as to what should be the direction and tendency of our teaching, as against the notion of making ditchers and grubbers. For all mere practical training, let a boy, after he leaves College, take service with the best farmer he can find, and go with him for two or three years through the daily work of the farm. Respectfully,

N. B. WORTHINGTON.

[Our esteemed correspondent will perceive that we have taken the liberty to suppress a portion of this practical and sensible communication, for reasons assigned in our foot-note to Col. Wilkin's letter.—EDITORS.]

“LET US HAVE PEACE.”

AGRICULTURAL COLLEGE, April 19, 1873.

Messrs. Editors:—Having learned that Col. Wilkins, of Kent county, was not the author of the article in your March number signed “Old Kent,” I wish to express my great regret that in my reply to that article I should have mentioned his name in a way that might suggest to the reader that I thought him to be so. It was not at all a necessary inference from what I said, but I can quite understand now that I should not have used his name in that connection, and beg he will pardon it.

It seems to me your correspondent, who, I have reason to think, is not a Kent county man at all, was not warranted in assuming a signature that would locate him there, and so mislead me. I take pride as a Marylander in the agricultural position of that noble county of Kent, and Col. Wilkins is justly entitled to the praise of being the head and front of the great advance there in agricultural wealth and improvement. It was not unnatural, when I was looking to Kent county for the author of the article in question, that so conspicuous a figure as Col. Wilkins should have arrested my attention, and made a passing impression as to the authorship, which was altogether erroneous. I again ask pardon of him, and of all Kent county, for thinking of them in that connection.

In my communication for this month, please omit, if you have not done so, the introductory portion, which may have too much the character of controversy; and then, Messrs. Editors, let us agricultural folks “bury the hatchet,” and take up “the shovel and the hoe.” “Let us have Peace.”

Very truly, N. B. WORTHINGTON.

SELECTING SEED CORN.

To the Editors of the Maryland Farmer:

The time of planting corn being at hand I give you briefly my practical experience on the subject. The favorite late corn grown in the northern and western counties of Maryland, and most of the counties in Pennsylvania, is the large yellow and white, the former particularly, both a cross between the flint and gourd seed. The yellow is preferred for feeding stock, and is generally ground or chopt for that purpose. The white for meal and hominy.

For late planting the following are reliable sorts and may be planted in this latitude as late as the first of July to produce a matured crop, viz:

No. 1.—Sanford, alias Mandan.

No. 2.—Tuscarora or Flower Corn.

No. 3.—Anne Arundel Market.

No. 4.—Sioux.

No. 5.—Buck 12 row Yellow.

No. 1.—Color, a greenish white, bearing 8 rows.

No. 2.—Produces the whitest meal known, and particularly valuable for mixing with wheat flour; 8 or 10 rows.

No. 3.—Grains a clear white, size of ears full medium, 10 or 12 rows.

No. 4.—Bright yellow grains, and characteristically same as No. 1.

No. 5.—The favorite New York crop corn, introduced by Judge Buck, late of Albany; 12 rows.

EARLY CORN FOR BOILING.

Adams, Evergreen Sugar, and No. 2 or 3; these ripen in succession.

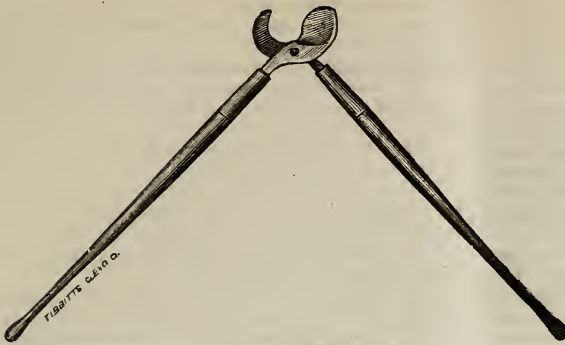
SELECTING SEED CORN.

It is my practice to select from stalks of medium height, bearing one large ear, the tops of which are bent down for a mark that they are to be shocked separate from the crop. When time permits, pull off the ears, strip and hang them up in a dry airy loft. Previous to shelling or planting, make a second selection, having an eye to the grains being regularly set on the cob, and size of the cob. Cut off $1\frac{1}{2}$ inches from either end of the ear, which will cause the grains of the succeeding crop to be more uniform. If the land was not plowed late last autumn to expose the larva of the cut-worm, the seed ought to be soaked in fish or meat brine over night, and rolled in gypsum previous to planting. When the plants are fairly up, (as an additional antidote against the worm,) strew over them slightly 5 parts dry wood ashes and 1 part each gypsum and salt; or if the land is rich enough and does not require these stimulants, a desert-spoon full of salt to each hill will be sufficient. PLOWMAN.

Baltimore County, Md.

NOTE.—Seed corn obtained east or north of Mason & Dixon's line will not produce an average crop in this or a more southern latitude short of the third year.

MANUFACTURE OF WINE IN ALBEMARLE COUNTY, VA.—The manufacture of wine from grapes is coming into general favor in Albemarle county, and it is said the production for the coming season will be 30,000 gallons. We learn that a movement is on foot in the county to equip a complete wine cellar, with a capital of \$20,000, and a capacity of turning out 50,000 gallons of wine per annum.



EAGLE PRUNING TOOL.

The knife and guard of this Tool are so shaped they let the limb rest on the joint. With the knife drawing it cannot slide, or roll the bark, and cuts easier than any other knife in use. Price \$3 to \$4. The Hon. X. A. Willard speaks of this Tool as follows: "The Eagle Pruning Tool manufactured by you, came by express last week. I went with it at once to my orchard to test its usefulness. It makes a clean cut and works with great ease and perfection. I have seen nothing that will compare with it in efficiency. It must prove invaluable to fruit growers or to others who have the care of trees and shrubbery. It cannot be recommended too highly." Sold by Baltimore dealers.

For the Maryland Farmer.

POTOMAC FRUIT GROWERS.

The regular monthly meeting of the Potomac Fruit Growers' Society was held at their Rooms (Board of Trade, on Tuesday, April 1st, C. Gillingham in the chair, Fulson, Secretary. The attendance full, and the display of Apples very fine.—Among the best were, Winesap, Tewksberry Blush, Spitzenberg, Flushing, and Lady Apple, all of which were tested by eating and found to be very good.

Wm. Saunders exhibited specimens of dried fruit, by the new process, of machine drying, which he said was good and economical—doing it well.

He also exhibited a machine for grafting, which was referred to a committee to test and report upon, at the next meeting.

Mr. R. Colton, of Md., presented fine specimens of Tewksberry Blush and Roman Stem Apples.

The most important point of business acted upon, was the importance of making a fine show of fruits, from this region, at the meeting in Boston next September, with result as follows:

Major Williams called attention to the necessity of the association preparing a collection of fruits to be presented at the coming meeting of the American Pomological Association, to be held in Boston next September, and moved that a committee of five be appointed to forward the movement.

The Chair appointed Wm. Saunders, Major. H. C. Williams, Judge J. H. Gray, Dr. E. P. Howland and J. B. Clagett. The President and Secretary of the association were added to the committee.

Mr. J. Hoffman Smith presented a bunch of sweet potatoes which had been hung up in a cellar and kept during the winter with only the heat of an ordinary stove to protect. The bunch was examined and the potatoes found to be perfect. The plan of preservation was discussed and approved.

Mr. Saunders thought this a proper mode for keeping all tubers, as well of vegetables as of rare flowers; to be kept at a uniform temperature not

much above or below sixty degrees, and undisturbed.

He also thought this region—Maryland and Virginia—the best fruit country in the Union, and proper efforts to get up the best collection, for the Boston meeting, would prove it, and be of great advantage to those States. After some debate as to the best sorts for this section, and the best time for setting out, the society adjourned to first Tuesday in May.

D. S. C.

ANSWER TO ENQUIRIES OF P. D. H. OF CHARLOTTE HALL, MD.

He desires us to say "something about the propagation and improvement of Maryland fruit; from seed and other means." We refer him to some excellent views on this subject which we copy in this number, from one of our exchanges. Next month we will endeavor to meet his wishes more fully by our own observations on this subject, which seems to be enlisting the interest of the farmers of Maryland to a great extent.

RECEIVED.

From John Saul, of Washington city, Descriptive Catalogue of New, Rare and Beautiful Plants, Dahlias, Chrysanthemums, Geraniums, Fuchsias, Carnations, Verbenas, Phloxes, &c., for Spring of 1873. This Catalogue has a beautiful colored Primula Japonica frontispiece, with other embellishments.

From H. S. Hyatt, Editor, a copy of "Manufacturing, Agricultural and Industrial Resources of Iowa; with reliable information to capitalists seeking the best fields for investments. Also, valuable information for emigrants seeking new and desirable homes."—Published under the direction of the State Board of Immigration, by H. S. Hyatt, editor and proprietor of the "Iowa Progress," Des Moines, Iowa. To those contemplating settlement in Iowa we would advise to send for a copy.

Hon. Jas. T. Earle, of Queen Anne's, has traded his celebrated horse, "Tankerville," with Governor Bowie for his thoroughbred horse, "Stonewall Jackson."

For the Maryland Farmer.

LIME AND MAGNESIA.

NUMBER TWO.

In the previous number I tried to point out some of the beneficial results following the spreading of unslaked lime and magnesia on the soil.—Among which is the total defeat of the perfect dissemination necessary to their early and permanent action in ameliorating the soil, and feeding the plants.

I will now try to answer another reason assigned by farmers who throw stone lime on the soil. They say, "it avoids the disagreeable inconvenience of spreading lime dust." So indeed it does; and not only so, but it renders it impossible ever afterwards to be spread.

So, also, they avoid the expense and disagreeable inconvenience of making cheese by casting the milk into the pig trough; so, also, they avoid the trouble of spreading other manures by leaving them in cakes or heaps, where the air and the drains, and not the soil, are replenished by their fumes. So, also, they might save the trouble of spreading *plaster dust*, by drenching it in the rains, when it will form lumps, and these lumps may be conveniently scattered over the soil. They also say, "*it avoids hauling the additional weight of water absorbed by lime in slaking.*"

And this is true. So, also, it would be a great saving in carrying or hauling water, and expense of milling—paying toll at the gates and the mill, to cook the meal dry, or the corn on the cob, as the soldiers do in war. So, likewise, we might present carbon as food to animals in the form of charcoal, and save the expense of producing plants through which to administer the carbon necessary in the animal structure.

These illusive schemes of economy are not more ridiculous than the practice of throwing lime shells on the land to feed plants and to ameliorate the soil. Neither can possibly accomplish the purpose intended.

"*The disagreeable inconvenience of spreading lime dust, and the great quantity of water to be hauled in the dust,*" are somewhat incongruous objections.—But they exist, and the interests involved demand their serious reflection.

To the first, I reply it is not necessarily disagreeable to spread powdered lime.

A Fertilizer Spreader, which will be more fully described in the advertising columns of the *Farmer*, is being manufactured and sold at Woodstock, Va., that spreads lime and plaster so that the dust cannot reach the driver of the machine. The price, I think, would not exceed one hundred dollars.

A farmers' club of twelve members may purchase one of these recently patented machines at less than nine dollars expense to each member, and it will do the work of all.

As to the second objection, the "*additional hauling*" is about 10 pounds in 100.

Professor Johnston, (Ag. Chem.,) says, spontaneously slaked lime consists of

Carbonate of Lime, (in round numbers,)..... 58 per ct.
Hydrate of Lime..... { Lime... 32 per ct. } 42 "
 { Water... 10 " }
100 per ct.

The hauling then of *ten* pounds of water, in spontaneously slaked lime, to each 100 lbs., say two hundred pounds in each ton or load, is the amount so much complained of by these water aversionists.

Their mathematics seems not to contemplate the weight of stones, to which I now call their attention.

The only pure form of carbonate of lime found in nature is the white marble.

We cannot procure this at sufficiently cheap rates for agricultural purposes. We therefore take the impure limestones of our valley. In these are many impurities which will not decompose by the heat necessary to produce lime.

Moreover, by our imperfect modes of heating we cannot expel all the carbonic acid from the purer stones. Hence the lime-shells, appropriately called "*stone lime*" by our farmers, often contain *impure* stones, or not sufficiently heated *lime* stones to slake.

Even if sufficient heat is applied to every stone, if there is not free egress for the escape of the liberated acid, it will not be expelled from all; and these, with the impurities, amount in most kilns to about one-fifth of the weight of the stone lime.

This is 20 pounds in the 100, or 400 pounds in the ton or load, against only 200 pounds of water in a ton of lime dust.

These impurities, or this unburned limestone, may be so calcined, and the acid so expelled from the external surface, as to deceive the most practical eye, without an examination, not likely to be made by the teamster, or by a farmer who heaps stone and lime on the soil to avoid the hauling of water absorbed in slaking.

The 200 pounds of water per ton in slaked lime is no detriment to the soil, and *passes away but too soon*.

The 400 pounds of rocks concealed in the stone lime lie scattered over the fields, forever obstructing cultivation and the growth of plants.

The cost of gathering and removing them would exceed the whole expense of hauling the *slaked lime and its water*. The loss entailed by their presence for a long time in the soil would be tenfold greater.

The lime that would have slaked thoroughly at the kiln, or in large or protected heaps, is chilled on the fields by the rains into lumps. The hopes of the farmer to improve the soil by the introduction of insoluble lumps of lime and rocks are suspended—unrealized during life.

The lumps of lime that whiten the fields will not dissolve, or persuade, or "*dispose*," as the chemists have it, any other inorganic, or any organic substance to decomposition, but till crushed by the ploughshare, will remain as inert as stones—relics of ignorance and bad husbandry.

The hope of any sensible benefit from the small amount that might fall to powder, in spite of this barbarous treatment, or be crushed in cultivation, could only be realized, if at all, from an overdose, involving great expense and injury to the soil.

Let us compare the working and results of the two plans. Take two acres of soil that need 40 to 50 bushels, or say for convenience 2,722½ pounds per acre, which is precisely one ounce to every square foot of surface.

Acres No. 1 is dressed in the usual manner.—That is, a few sled—or cart—loads of stone lime

supposed to contain the quantity of lime dust, is hauled over it and placed in piles. The amount of impurities and unburnt rock in it, and the diversity in the yield by different modes of burning renders the quantity a matter of guess.

But suppose we approximate the proper quantity.

It is left in small heaps to slake. It never slakes but crumbles into lumps and cakes.

These are thrown about as best they may be with shovels.

There are 43,560 square feet to be treated; an even distribution gives one ounce to every square foot, and that is the sole object of spreading.

If too much or too little lime exists in spots plants cannot thrive on those spots. If no lime exists in any particular place, or not enough for the necessary food of the plants, they will perish.

If one square foot of surface be dosed to four ounces, which must often occur in spade-spreading, it will have three-fold too much, thus robbing three times that space—that is, this foot of soil receives, instead of 40 or 50 bushels per acre, at the rate of about 175 bushels, or over ten thousand pounds, instead of two thousand seven hundred and twenty-two pounds per acre, intended.

If another foot of soil receive one pound of lime, which is not unlikely in shovelling lumpy lime about, it is dosed fifteen times too much, or at the rate of about 700 bushels—or exactly *forty-three thousand five hundred and sixty pounds*, instead of the *two thousand seven hundred and twenty-two and one-half pounds per acre intended*.

Thus this spot is over-limed—its present fertility destroyed; leaving fifteen times as much soil sterile for want of lime.

The result is briefly this: the lime is unevenly applied, at the rate of none on some places, and on others from 10 to 43,560 pounds per acre!

Yet if a farmer, who is satisfied with such slaking and spreading of lime, is asked at what rate he applied lime to acre No. 1, he will answer, *at the rate of 2,722½ pounds!* And he is sadly disappointed that it has not responded in the succeeding or second crop. This is the singular fate of lime and magnesia. From no other mineral fertilizer are expected such impossible results.

Scattering lime and magnesia in lumps and cakes is a two-edged sword, injuring the soil both ways.

The result is the mysterious source of doubt among farmers as to the benefits of lime for many years after application. No one doubts its benefits after the lapse of five or ten years; and they all see its beneficial results in our Valley after 20 or 30 years.

In the course of ten or twenty years of unprofitable cultivation, the lumps are crushed and disseminated. Spots over-limed are relieved, and barren places supplied, by plowing and harrowing. In the meantime the major part of the lime in granular lumps is washed into the drains, and away forever.

Acre No. 2 is limed as follows: the lime spreader is filled to the height in the hopper indicating 1360 lbs., or say 20 bushels of lime dust. This is a two-horse load on fresh ploughed land. It is half the quantity designed for the acre. There is no guess work, the hopper indicating the number of bushels or pounds. It is thoroughly spread over half the surface, and another in like manner over the other half. Every foot of surface is whitened—receives

its equal portion in fine powder. It is easier, more agreeable, and quicker than the other mode.

The rains come down charged with carbonic acid dissolved from the atmosphere. This acid dissolves the powdered lime, and it sinks into the soil, disappearing immediately. It instantly begins its infinite round of work in the soil, elaborating other mineral and all vegetable food, and entering itself into the constitution of every plant.

In brief, the lime and magnesia are more perfectly disseminated by the spreader in a few hours, than on the other acre by twenty years of unprofitable cultivation.

It is not washed away, but sinks and mingles with the soil, and feeds the plants.

VALLEY FARMER.

[TO BE CONTINUED.]

FARMERS' CLUB IN WASHINGTON CO.

NEAR HAGERSTOWN, MD., April 19, 1873.

To the Editors of the Maryland Farmer:

As you seem to manifest much interest in the formation of "Farmers' Clubs," I have concluded to give you the result of our efforts in that direction, which you may publish or not at your discretion.

Notice having been generally given in our county papers that a meeting would be held, to-day, on the farm of Isaac Motter, Esq., near Williamsport, for the purpose of organizing a "Club," a number of persons assembled; the day being inclement, many were absent who had expected to be there, and, for the same reason, the ladies were deterred from giving their presence; there were, however, quite a goodly number of farmers "on hand," and the meeting was held.

It had been announced that the meeting would be held somewhat upon the picnic style, but the weather being unpropitious, we were driven to the friendly shelter of the capacious barn upon the premises, where tables, seats, &c., had been improvised by the proprietor.

The meeting was a decided success, notwithstanding the weather; a temporary organization was effected by the appointment of Mr. Motter as temporary President, and Mr. A. K. Stake as Secretary.

The objects having been stated, after some desultory conversation as to the routine to be pursued, Mr. Jno. L. McAtee, who had been previously invited to do so, delivered an essay upon the subject of "the utility of Farmers' Clubs," "the importance of such organizations," and other topics of interest to the farmer, which was well received, and Mr. McAtee complimented very highly upon his success. A copy was solicited with a view to publication; after which the secretary read from the *Maryland Farmer* some extracts from "Mr. Jilks on Farmers' Clubs," which, while it afforded much amusement, was generally regarded as a sensible view of what "these Farmers' Clubs" have "to contend with," &c.

Various matters were discussed, such as the benefits to be derived from lime, its proper application and results—The utility and proper method of the cultivation of Hungarian grass—The proper time of planting corn—The best methods of preparing the ground ends of fence posts, &c.

The discussions were held in plain colloquial style, as best suited to the farmer, the members generally participating and each giving his experience; which added very much to the interest of the occasion. It is not within the scope of this communication to give you a report of our sayings, as they were calculated only to interest our immediate vicinity, and were the results of experience among the stiff clay lands and limestone rocks of our county. My object is simply to inform you, and through you, your readers of our plan of operations.

We meet upon the farm where we can see for ourselves what is there to be seen. We take our own provisions and provender with us, and all we ask of the proprietor is the use of his lawn or orchard, or, in case of inclement weather, the shelter of his barn, the proprietor simply providing for himself as others do.

Our organization does not contemplate the payment of fees, the erection of a library, or in fact the entailment of any expense upon its members except what is voluntary. We will have of course proper officers, a constitution, by-laws or rules and regulations for our government, &c. An essay will be delivered by some competent member upon some subject of interest to the farmer at each meeting, when the ordinary style of farm talk will follow.

We propose to meet on say the third Saturday of each month, for eight months of the year, in true *pic-nic* style, taking with us, when the weather is favorable, our wives and children.

As I before remarked, our meeting to-day was a decided success, and when the time arrived to discuss the substantial of life, the baskets were emptied upon a table improvised for the occasion, and were found to contain provisions for a much larger crowd than were present. Ample justice was done to the repast, and the full enjoyment of the edibles was much enhanced by the foresight of Mrs. Motter, who, in view of the rawness of the atmosphere had a boiler of delicious coffee sent to the barn, for which she received the unanimous thanks of the company assembled; in fact all were pleased, and without a dissenting voice it was determined to keep it up.

Our next meeting will be held on the farm of Mr. B. J. Byers, upon what is known as Salisbury Ridge, on the third Saturday in May, it being the 17th of the month, by which time it is expected our farmers will have finished their corn planting, and with favorable weather, we expect a good time generally.

The idea is not a new one, nor had it its origin here, but is drawn from the experience in part of other sections, to which we have added one or two features that addressed themselves to us as of value. It is peculiarly adapted to the simple rustic habits of our people and we flatter ourselves we shall escape some of the disasters that usually befall the efforts of those attempting to get up such organizations, and which is so graphically depicted in the communication of "Mr. Jilks" in your January No. —even if we do not realize all the results of his March communication.

It is not proposed to confine ourselves strictly to farmers, but the miller, the merchant, the mechanic, the distiller, the brewer, and in fact all classes of citizens will be admitted to membership, as all are

deeply interested in the success of the farmer and the increased productions of the soil.

Permit me to add that our wheat crop, at present, gives promise of an abundant yield. Our farmers are somewhat backward with their preparations for the corn crop, owing to the backwardness of the season, and the fact that owing to the prevalence of the epizooty, but little ground was plowed in the fall.

Of fruit we have the promise of everything, except peaches. It is doubtful whether there will be a single peach raised in the county, besides nearly all the old-bearing trees are killed, so we will have to depend upon young trees and the future for that delicious fruit.

Yours,

AGRICOLA.

For the Maryland Farmer.

UTILIZATION OF COAL ASHES.

In the "Farmer" for March, I expressed my opinion of the value of coal ashes, uncombined, as a fertilizer, and feel satisfied that my statements are corroborated by practical experience and chemical analysis.

But I think that they may be used to better advantage by composting, or manipulating, with other substances.

Coal ashes, we have stated, has a great affinity for ammonia and will absorb it; it is therefore a valuable addition to all fermenting and decomposing heaps generating this gas so valuable to the farmer.

Coal ashes is rarely obtained in sufficiently large quantities to mix with large banks of barn-yard manure, but for the earth closet, hen-house and kitchen waste compost heap, any family using one coal fire, can have a moderate supply to be used less sparingly than if it were abundant.

For using under the hen roosts it is invaluable. Sift your ashes into a barrel and remove to the henner; every day or two sprinkle the surface covered by the dropping of the fowls, with the ashes, according to the supply. By this means all unpleasant and unhealthy odors are absorbed, and the valuable plant food developed during the process of slow fermentation, retained. Thus treated the house will remain sweet and clean even during the summer months.

The compound of ashes and hen manure will be found friable and easily distributed at any time, and as valuable as the best guano. Indeed, one part ashes and one part hen dung is better than the pure dung, if left in a heap, as much of its valuable ingredients are lost in the active fermentation which will undoubtedly take place if not freely mixed with some absorbent.

In the spring this accumulation can be used with great profit upon corn, roots or any crop, and act

in a manner to surprise those who have never tried it. I have never been able to notice any better results with Peruvian guano, or the best commercial fertilizers.

For the earth closet nothing is better, nothing more readily obtained, than coal ashes, for those who burn coal.

In view of the great convenience in their use and the great saving of a great waste, I may be justified in urging upon all the simple means by which they may effect the perfect deodorization and disinfection of human feces, and convert what is usually a great source of annoyance and waste into a valuable manure and source of profit.

One great obstacle to the rapid introduction of the earth closet is to be sought in the idea that people dread the difficulty of obtaining a suitable absorbent in the proper state of preparation.—Whenever coal is used for fuel, this obstacle is entirely removed, as the ashes is just the *very best material* that can be procured. Where ashes is scarce it may be used five times over, and seem to be perfectly inoffensive in the end.

• As to the value of this manure, no one doubts its efficacy; it is always in demand, and the article manufactured in the cities and sold by companies is not half as effective as the home-made article, as its bulk is considerably increased by the addition of an unnecessary amount of earth, rubbish, &c., not containing much fertilizing qualities.

On the heap of waste compost, usually formed near the kitchen, the ashes must be sprinkled over the whole mass every four days.

In saving the ashes, it will be best to sift under cover and keep them perfectly dry, as in that condition they are a better absorbent. But if heaps are about the premises, sift and expose to the sun, when a day or two's sun will make them very dry.

Aside from the ease with which this very valuable material is provided to increase our stock of home-made fertilizer, there is a further advantage in the regular sifting of the cinders that the system requires. A great deal of half burned coal, that would otherwise be thrown away, is thus economized for a second burning, and the ashes themselves, instead of accumulating to no purpose, are made very valuable for use on the farm or garden.

E. A. VANNORT, M. D.

Hanesville, Kent Co., Md.

Alabama Agricultural and Mechanical College.—We have received the Catalogue of this College, located at Auburn, Alabama, which appears to be in a very prosperous condition, the register of students numbering 110. The Faculty is composed of gentlemen well known for their learning. Rev. J. T. Tichenor, D.D., President.

From Ellwanger & Barry, Rochester, N. Y., Descriptive Catalogue of Fruits—Catalogue of New and Rare Deciduous Trees, &c.—and Wholesale Catalogue for Spring of 1873,

WAIT'S PATENT HORSE FEEDER.



This feeder is made of heavy canvass with leather bottom, and has a strap which goes over the horse's head, with springs that keep the feeder always to the head of the horse, and he eats without any waste and it is a great saving of feed.

Sold by the Trade in Baltimore.

FOREIGN LABORERS FOR KENT COUNTY, MD.

A correspondent in the *Farmers' Club*, of Oxford, Pa., writes:

"Some of our farmers have formed themselves into a Society for the Purpose of Procuring Foreign Laborers. They have sent Mr. Morris Asher on to New York to procure twenty-five Germans—men, women and children. I hope the result may be to unite the farmers in a permanent organization such as the farmers' clubs in other sections."

THOMAS' HARROW.

We find that there is a great diversity of opinion even among practical men, says the *Journal of the Farm*, as to the value of Thomas' Smoothing Harrow. Some recommend it very highly, while others condemn it as a humbug. This difference can only be accounted for by understanding the different circumstances under which it has been tried. That it does not give satisfaction on rough, stony or cloddy land we can readily understand; that it does good work on smooth, well worked land we know from seeing it tried. In finishing off a field recommends itself by the width of its stroke and the thoroughness of its work; it is neither heavy enough or strong enough for rough land, though the slanting position of its teeth makes less strength needful.

POTATO SEED.—Royal Smith, in the *German Town Telegraph*, says:—"Experience has taught me that a good-sized, ripe potato, while it is very much the best for table use, for seed it loses somewhat of its vitality in the ripening process, and consequently is not so good for seed as one in which the ripening process has not advanced so far, or in other words, one that is unripe:

For the Maryland Farmer.

POTATOES—NEW AND OLD KINDS.

As nothing grown on our lands can supply the want of the potato as an article of food, we should plant none but the very best that our markets can afford. But our varieties are now so numerous that it is hard for us to decide which of them are the best, quality and productiveness considered.—The following hints may prove useful to some of your readers:

The *white-fleshed* potatoes are generally considered the best for table use, and it seems to be agreed that the *best* potato is that one that grows freely and yields abundantly on most soils, and boils quickly into a smooth, dry, light and pure white or yellowish white mealy food. The "White Mercer" potato (that originated from seed bulbs in Mercer county, Pa., in 1812, sixty years ago,) has ever since 1812 been regarded as the *standard* of potato excellence in Pa.; but it has for a good many years past yielded so poorly that we now but seldom find it in our markets. And so we Pennsylvanians have tried the various *new* sorts produced by the Rev. C. Goodrich, of New York, and others of our Northern States, and our trials have resulted as follows:

The "Early Goodrich" ripens quite early, and yields largely, but is so variable in its quality, being sometimes good, and then again so watery and tough as to be almost worthless, that but few people in our parts now raise it. The "Harrison" potato is of a very handsome size and shape, and a great yielder, but it is even more watery and tough than the Early Goodrich; and Goodrich's "Gleason" is for the same reason, but little better than the Harrison. The "Garnet Chili" is a red-skinned and white-fleshed potato that yields well, and has a solid and a good deal drier flesh than the Early Goodrich, Harrison and Gleason. but is after all only a third-rate, or at least but a second-rate potato in point of quality, and its skin and flesh are often so worm-eaten and disfigured when dug up in the fall as greatly to injure their marketing.—And the "Buckeye" of Ohio, though rather better than the G. Chili in quality, is subject to the same worm-eaten disfigurement, and a poor yielder. The "White Peachblow" is a dry and nice potato, nearly equal in quality to our famous old Mercer, but has such deep sunken eyes, and ripens so late in the season, that many persons declined growing it.—The "Prince Albert," obtained from England, has a tendency to become somewhat watery at one end of its tubers on some soils, but is a beautiful and excellent potato, nearly if not quite equal in quality to the Mercer when grown upon favorable grounds,

and also a great yielder. But it has of late years been declining in productiveness, and so is not so much grown here as it used to be. The "Early Rose" that produced such a stir all over our country a few years ago makes a fine, very early ripening potato, but is too watery, tough and heavy afterwards to make a good fall or winter potato, and so is rapidly losing its popularity among us. The "Michigan White Sprouts" seems to stand next to the Prince Albert in quality and productiveness, but is at times like the Garnet Chili, subject to be worm-eaten.

Our experience with these and other new kinds of potatoes seems to have fully established these two facts, to wit: 1. That our early ripening potatoes very seldom make a good fall and winter potato, and 2. That our greatly "cracked up" new varieties of the potato, such as the Early Goodrich, Harrison, Gleason, Garnet Chili, Buckeye, Early Rose, &c., are not near as good in point of quality as our old kinds bearing the names of "Mercer," "White and Yellow Buck Eye," "Blue Kidney," the "Black Potato," so called from the blackish color of its rough skin, and the "Long John," a bright, reddish-skinned potato, covering a flesh of greater whiteness than any other potato that I have ever seen. I wish I knew where I might get these two last named sorts. The Long John was a very superior potato for late winter and spring use until new potatoes made their appearance. The "Peerless" is a new variety of Northern origin, now attracting our attention. It is a very handsome, smooth-skinned, shallow-eyed, white-fleshed potato of fine size, that is said to yield very well, ripen pretty late in the season, and make a winter potato nearly equal in quality to our old far-famed Mercer. A friend has presented me with three of his small stock of the "Peerless" for planting, and I hope it may prove of permanent value, and so give us what our other new varieties have so far failed to give us, to wit: a solid, crisp, dry, mealy winter and spring potato of uncommon excellence. And now if some of your readers will send you like notices of these and other *new* varieties of the potato, much good may be the result, both to the producer and the consumer of this highly valuable eatable, our common American potato. J. F. WOLFINGER.

Milton, Pa., April, 1873.

SEPARATION OF STOCK.—Hens ought never to be kept in the same quarters with fowls of certain other species, as turkey, pea fowl or Guinea hen, because these worry them and drive them about. Ducks also ought to have a separate sitting place, because they get dirty with the droppings if they sit on the ground in the ordinary hen coop; birds of a feather should flock together.—*Poultry World.*

HORTICULTURAL.

FRUIT CULTURE.

PRESENT AND PROSPECTIVE.

DISEASES OF TREES, ENTOMOLOGY, &C.

I have just read in your issue of January 24th an interesting paper on the protection of our fruit trees from insects. The whole subject of fruit culture is an important one—especially to the people of Delaware. And its importance cannot too frequently be impressed on their minds.

The fruit interest has become one of the great interests of the State, and is destined to become of still greater moment.

We are, in fact, just *commencing* the business of fruit growing, because we are just beginning to learn what is necessary to be learned, to prosecute that business successfully. What have been the lessons taught us during the past few years? Have we not learned first of all, the value of our fruit crop? There are very few of us who do not remember when apples sold in our markets for a mere song, when peaches brought but little if any price, and when plums and cherries and the like, were only bartered away for kind words and thanks. To-day these fruits have their marketable value the same as corn and wheat. We have learned also, if I may so express it, the expensibility of fruit growing, or rather, I may say, we have been taught how greatly it has already expanded, but as yet we know not where is its *ultima thule*. Ten years back wise men, so called, shrewd men, far sighted men laughed at the idea of people putting out so many peach trees. Men who had some faith in it were called fools, and the prophecy was long and loudly uttered that, in less than five years, the trees would have to be pulled up by the roots. And yet millions and millions of baskets of the fruit of this tree have been gathered and shipped, and swallowed up in the great vortex of trade, and still the demand is as great as at first.

The question is sometimes asked, if the people continue to plant out trees, will not the supply in a short time exceed the demand? I do not pretend to answer this question with positiveness—but I believe it will be a great many years hence before such can possibly be the case. Our ripe fruits of summer are conceded by all to be the most acceptable and most suitable articles of food now grown for the use of man; not only for that particular season, but for all the seasons of the year. Physicians earnestly recommend them as one of the great preservatives of health, and among one of the best means in the prevention of disease. And what the concentrated wisdom of the wise disciples of Esculapius have pronounced "good," the common sense of the unscientific masses has confirmed.—The fragrant, sweet-tasted apricot, the acid, crispy plum, the nectar-juiced peach, the prince of all fruits, are indeed food enough, rich enough, ambrosial enough for the most delicate palate of the most epicurean of any of the fabled gods and goddesses. There is then in reality no need of any such fear as to the future of the fruit growing interest. New markets for its consumption are being opened up every year—and the fruit crate and the

berry basket are now finding their way into places where heretofore they have never been seen. Besides this, canning establishments and drying houses are springing up all over our State; and the fruit, thus conserved, can be kept for many years, and then be distributed throughout the habitable globe, wherever the white flag of commerce is unfurled.

It is true that thousands upon thousands of trees are being planted out every year, and thousands more will continue to be planted. But out of the millions of trees now growing in Delaware, how many of them produce yearly good, sound, perfect fruit! How many of these millions are bearing at all? And of the thousands of orchards, how many from want of proper attention, will be considered a profitable investment ten years hence? But even if all the trees now in bearing, increased by as many more, should be made to produce annual crops of good and sound fruit, there would then be no cause for alarm, *provided* those who are especially interested, and the most concerned, are only wise enough to take the control of this matter in their own hands, and will manage it upon broad, common-sense principles. In this, as in other branches of our industries, there must be judgment and co-operation.

The great want of the day, to my mind, is a more careful looking after the individual orchard, and the individual tree. And if this is not attended to, insects and disease will soon have gained such a foothold here among us that in a few years more, instead of the fruit crop being, as it now is, king of our crops, the great fruit interests of Delaware will have become a thing of the past—to be talked about as something that was, but now is not.

It is a fact that none will deny our fruit trees do not produce as abundantly as they should or can do. I refer now more particularly to other fruits than the peach. Sometimes a greater portion falls from the tree before it matures; at times the trees are loaded with wormy or half-rotten fruit—some years we have none at all. This is the case with all the various kinds of fruits, the plum especially, the apricot, the pear, the apple, and to some extent, the peach. Is there any necessity for such a state of things? I hold not, and if not, what a loss is entailed upon those engaged in the business—the loss of time and labor and money. We have a climate peculiarly adapted to the growth of all these fruits, and a soil containing plant food peculiarly fitted to germinate such fruit, and to bring it to the fullest possible perfection. What then is the reason for this state of things? The reason is twofold. First, fruit growers, as a rule, exercise too little care in the culture of their trees; and secondly, they bestow too little time and attention upon the subject of insects and diseases.

The important point, in growing a tree, is the starting point; and the greatest of care should be used in its selection—to obtain a good, healthy scion, of the proper variety, and thoroughly reliable. It is then to be carefully and intelligently nurtured. And just here a vast number of fruit growers fail in their duty. It would seem to be the idea of many, that a fruit tree has only to be put into the ground and left to itself, and then earth and air and sun and rain will accomplish all the rest. I have in my mind now two orchards of peach trees, put out about the same time, the stock

being of the best varieties, and procured from the best nurserymen—the one a fine orchard of well trimmed, good-sized, healthy looking, thrifty trees, bearing yearly, and bringing to their owner a handsome income; while the other, just over the fence, is but a parody on peach growing—a burlesque—a farce, half of the trees dead or dying, ugly to sight, unprolific, and have scarcely paid for the original purchase. The cause of the difference I well know—the want of proper attention to the trees after they were set out, and the almost total neglect of cultivation.

A fruit tree demands a certain amount of care and attention, and every tree of a large orchard requires the same and an equal measure of cultivation, that the single tree does. If the grower is able to manage and bestow the requisite care upon ten thousand trees, he can be as successful with that number as with a dozen. But, as a general rule, this is not the fact, and when not, the individual grower not only suffers himself, but likewise the whole fruit growing community. I would put it thus: as the time and labor and money upon one tree, so should be the time and labor and money upon a thousand trees, and then would follow as a logical sequence, as is the income from one tree, so will be the income from a thousand trees.

INSECTS INJURIOUS TO FRUIT—CURCULIO.

As regards the diseases to which our fruit trees are subject, and the insects that prey upon them, it appears to me a great deal has yet to be learned, at any rate but very little zeal has been manifested upon this subject commensurate with its gravity. To discover the cause of the disease, and the nature and habits of the insect, is the first step. These being understood, the prevention or eradication of the one, and the destruction of the other will be greatly facilitated.

Among these enemies of fruit trees, I know of none more to be dreaded, than the common Plum Weevil or Curculio. In some sections of the United States, the ravages of this little insect are fearful; and even here in Delaware, the failure of a fruit crop may in very many instances be rightly attributed to its depredations. All the smooth skinned fruits, the apricot, the nectarine, and the other varieties of the plum species, are especially liable to its attacks. The peach also suffers from this insect; and in my opinion to a much greater extent than is usually supposed. The failure of the Hale's Early, I have no doubt, is largely if not almost entirely due to it. Two years ago I watched attentively some nine hundred of the latter, from the time the blossoms first set, and I am thoroughly convinced that the entire crop, which fell off within three weeks of ripening, was destroyed by the curculio. The trees were fine, healthy ones, and located in a soil peculiarly adapted, if any soil is, to that particular variety. They had been carefully attended to, and that spring I had used extra pains to do for them everything that suggested itself as wise and beneficial. They had previously to this year borne two or three full crops of perfect fruit.

This little animal is very well known among entomologists. Its size, color, habits, and general character have all been carefully observed, and are minutely described. Many reported remedies have been offered, and many plans proposed to entrap, dislodge, or kill the active little creature. But as

yet, no so-called remedy has proven itself to be a remedy, and none of the means suggested have been found to be entirely successful, or altogether useful. Still out of this mass of means, methods and remedies, much good and much useful matter may be extracted, if properly and intelligently considered.

It is needful, first, that every owner of a fruit tree should be familiar with the nature and habits of this insect. Having learned the time it commences operation, the manner of its attack, and the various transformations and consequences that result, he is then enabled to decide for himself whether or not a remedy proposed is likely to be efficacious. The curculio, for instance, has been found to lodge itself in the rough bark of the body of the tree, and there, in all probability, it hibernates; and there it deposits its eggs. The wise grower will, therefore, see to it that the bodies of all his trees are kept clean and smooth, and free from moss or rough bark. This can easily be done by some one of the numerous methods recommended for that purpose. I believe that a thorough washing with common soft soap, into which has been introduced a proper amount of carbolic acid, is as effective to this end as anything else. But the grower must not content himself with this alone. His knowledge of the insect teaches him, that after the punctured fruit has fallen, it remains on the ground for several days before the little grub within has found strength enough to make its escape. If this fruit therefore is gathered up and destroyed, these embryo curculio are also destroyed. The wise grower will then also see to it that his orchards are plentifully supplied with sheep and hogs. The worm-eaten fruit is more readily and effectually removed by these two animals than by any other method that can be employed. The two means referred to are by far the most important and practicable for large orchards, and they should both in all cases be applied. For a small orchard of a few trees, or for single trees, in a yard or garden, some of the more expensive or laborious means of the many proposed can be made use of. Although the killing of one or a few of these insignificant little creatures might seem to be a trifling affair, yet if every owner of a single tree or a thousand trees is sufficiently alive to his own interests to destroy all in his power to destroy, the sum total of good done would prove incalculable. The great desideratum, however, is to discover some agent by which it may be entirely exterminated, or some method to surely and effectually protect the tree from its attacks.

REMEDY FOR CURCULIO.

And now, as an *addendum* to my already, I fear, too extended letter, I will state that a friend of mine thinks he has at length found this pomological philosopher's stone. I will give you, therefore, a supposed new remedy for the protection of fruit trees from the curculio and other insects.

The gentleman referred to has some very fine varieties of the plum, in the growth and culture of which he has taken considerable interest. But he never was able to obtain one sound and perfect plum in them all, owing to the extensive depredations of this insect. He says he tried each and all of the methods that he ever read or heard of, without avail. One plan was given a fair trial, and then another. The trees were, of course, in a

healthy state, being carefully attended to. He effected the dislodgement of myriads by the jarring process, and the concussion produced by the firing of guns and small cannons. But still the fruit would receive its puncture, and, before it fully matured, would fall to the ground. Last spring early, or the fall previous, I am not now sure which, he bored a little hole in the trunk of each of his trees, and introduced therein some *Hydargyrum Chloridum Corrosivum*, which you know is the common Corrosive Sublimate of the shops. The result was, greatly to his gratification, a full crop last summer of fine, large, perfect fruit. I tasted them myself, and they were truly luscious. They presented a handsome appearance, and were without speck or blemish of any kind. Now, whether the perfecting and maturation of this crop was attributable to the influence of the above mentioned article or not, I do not at present pretend to say, but *propter hoc* or simply *post hoc* for the truth of the experiment, and the result as stated, I am ready to vouch.

Before placing too much confidence in it, however, or even regarding it of any value at all, several things are to be considered. It is possible it is a mere coincidence. The trees might have matured their fruit last year, even if the experiment had not been made. Another year's trial, and the introduction of the article into some trees, and not into others, will decide that point. Again, last year was an unusually prolific year for all kinds of fruit. Everything seemed to conspire, meteorologically and otherwise, to bring about this most fortunate result. And trees that had been very shy and uncertain bearers heretofore, were, last year, loaded down with good, sound fruit.

Lastly, entomologists, or at least some of them, have advanced the opinion that a new parasite has sprung into existence, the chief food of which is this curculio. These parasites, they say, regard this little enemy of ours as a special enemy of their own. They have declared war upon it, and will, in all probability, succeed in exterminating the whole race. So mote it be. And if so, all our apprehensions for the future may very speedily be dissipated. The contract, it seems to me, is a big one, and yet such things have been before. We read of them in the history of agricultural achievements, and what has been, you know, may be again. It will be the part of wisdom, however, for the individual fruit grower, no matter how great his faith in the above declaration, to be unceasing in his own efforts to get rid of this troublesome insect, and to make use of every appliance in his power to effect its destruction. Providence helps those who help themselves. To bring about the great millennial era of the fruit grower, when the air will be freed from every deleterious influence or harmful insect, and when the earth will store away only innocuous food for the tree, nothing will go farther, or accomplish more than a knowledge of the laws of nature, and earnest, persistent, well-directed labor.—G. in *Peninsular News, Del.*

Compliments cost nothing, yet many pay dearly for them.

Criminals are punished that others may be amended.

As you salute you will be saluted.

GRAPE CULTURE.

PLANTING GRAPEVINES.

One would suppose that so simple a thing as planting a grapevine would not need writing about; and yet the number of people enquiring "How shall we plant?" is so great that a few words to these inquirers may well be pardoned by those who think they already know enough about the matter.

Now, it is a curious fact that in the grape-planting on the hills along the Rhine the effort is to plant deep, and also to keep the roots deep after they are planted. If the grapevine cutting has been made of three eyes, as they often are, and roots are protruding from the two lower ones, the upper set of roots are cut away, and every year afterwards, in going over with the annual pruning, any roots which may appear from the stem just below the surface are kept cut away. Yet we know that in our soils generally the vine never, or at least very rarely, does well when the roots get deep; and so much is deep-rooting dreaded by English gardeners, that we find by English periodicals that in hot-house culture they even lay a bed of lime concrete under the grape borders to keep the roots from going deep, and to force them to remain near the surface. It has been known to a certainty that the grapevine does best in our country on hills that are the driest, and it may be that on these German dry hills referred to there is no injury as there would be on our damp subsoils; and there may be, under some particular system of surface culture, some advantage in keeping the roots away from the cultivators, when there is no harm resulting their deep growth.

Here, however, the rule is to plant the roots shallow. If they are long when we have to transplant them, instead of setting them deep we lay them along about four or five inches beneath the surface.

It is of course very necessary to press the soil very hard and firm over the roots; that is if the earth is tolerably dry, though in truth no tree should be planted except the earth is in this good condition.

It is very useful in planting a grapevine to cut it closely in. Unless the last year's growth be very vigorous it may be almost all cut away; and even where this growth is strong, one-half may be cut away. This is the way to get a good strong cane for bearing next year, which is the most that one ought to expect a vine to do. "Immediate bearing" is a delusion and a snare. Many a person spends a dollar or a half dollar extra on a vine which he is told by the seller will "bear this year," when for that amount of money he could buy treble the quantity of grapes it will bear for him, even if it bears at all. Still we like to plant good strong healthy grapes. The little crowquills which come out as rare grapes at high prices, seldom give much satisfaction. Indeed, it is more than likely that the immense failures which generally follow all these introductions are as much owing to the way their propagation is forced, as to any inherent inability in the varieties to become adapted to soils and climates.—*Germanstown Telegraph.*

Constant occupation prevents temptation.

LADIES DEPARTMENT.

UPWARD.

Upward, where the stars are burning,
 Silent, silent in their turning
 Round the never-changing pole;
 Upward, where the sky is brightest,
 Upward, where the blue is lightest,
 Lift I now my longing soul!

Far above that arch of gladness,
 Far beyond those clouds of sadness,
 Are the many mansions fair!
 Far from pain and sin and folly,
 In that palace of the holy,
 I would find my mansion there!

Where the glory brightly dwelleth,
 Where the new song sweetly swelleth
 And the discord never comes;
 Where life's stream is ever laying,
 And the palm is ever waving—
 That must be the home of homes.

Where the Lamb on high is seated,
 By ten thousand voices greeted,
 Lord of lords and King of kings;
 Son of man, they crown, they crown him;
 Son of God, they own, they own him,
 With his name the palace rings.

Blessing, honor, without measure,
 Heavenly richer, earthly treasure,
 Lay we at his blessed feet;
 Poor the praise that now we render;
 Loud shall be our voices yonder,
 When before his throne we meet.

A CHAT WITH THE LADIES FOR MAY.

BY PATUXENT PLANTER.

"May, the bright maiden, singing goes
 To where the snowy hawthorn blows,
 Watching the lambs leap in the dells,
 List'ning the simple village bells."

"Oh, come! and while the rosy-footed May
 Steals blushing on, together let us tread
 The morning dews, and gather in their prime
 Fresh blooming flowers."

May has come, carpeting the earth with its richest
 suit of dark velvety green, and spreading flowers
 everywhere, decorating the trees and shrubs with the
 loveliest blossoms of every shade of color, while the
 air is laden with the sweetest perfumes. Joyous,
 bright May! we welcome you as the harbinger of a
 glorious summer and teeming autumn.

To the country maiden and matron this month
 should be a busy one. The flower garden, the dairy
 and poultry yard require constant attention. Early
 rising and some energy is necessary for success in
 these several important and highly interesting depart-
 ments, that are the peculiar province of the females
 in rural households. Delicious butter is to be made
 now for present, and for next winter's use. The chief
 work, for a lovely flower garden during the summer,
 is now to be done. If the table is to be supplied dur-
 ing the year and next winter with the delicacies of
 a variety of poultry, strict attention must be given
 to the setting, hatching and rearing of all the differ-
 ent domestic feathered tribes.

In the dairy the chief rule is *cleanliness*, and let the
 work be done early in the morning and late in the
 evening.

In rearing poultry, feed high and often, keep the
 young from wet or storms, and not confined too long
 on one spot; give plenty of pure water and a variety

of food. Follow the directions of some good treatise
 on poultry raising.

In the garden keep down every sprig of grass and
 weed; keep the soil well stirred and highly manured.
 Work among the flowers chiefly before breakfast,
 and you will have rosy health blooming on your
 cheeks, and a keen appetite for your coffee, rolls, but-
 ter, eggs, relishes and fruits that the provident house-
 keeper spreads upon the table, and you will above all
 enjoy exuberant spirits. Let a generous rivalry be
 excited in the family, as to who will catch the "white
 sparrow."

Ornamental grasses should be cultivated, as they are
 a beautiful and interesting class of plants in summer,
 and furnish, with little trouble, pretty winter bouquets
 and dinner table decorations.

Among the novelties in flowers, introduced this
 year, I would suggest for your additions to the flower
 garden or baskets, *Smilax*, not a novelty, but only
 lately having its merits acknowledged, and now one
 of the most popular plants sold by florists, *Coleus*,
 superior for growing in masses, pot culture, or ribbon
 borders. *Campanula Medium Calycanthema*, rich blue,
 and pure white. Splendid new varieties of *Canterbury
 Bells*, *Tom Thumb Cockscomb*, 6 inches high, large
 combs of rich crimson, and the new *Japan Cockscomb*.
 The branches and leaves from the roots are scarlet,
 and a single plant or a dozen in a bed, make a bril-
 liant show all summer and autumn. *Amaranthus
 Salicifolius* is a splendid striking plant, 4 to 6 feet high,
 with graceful, brilliant flowers, and foliage variegated
 and changing. One of the most lovely, conspicuous
 and superb novelties is *Celosia Huttonii*, leaves deep
 claret, every branch tipped with bright crimson
 flowers.

Set out your bedding plants, such as *Salvias*, *Lemon
 Verbena*, *Heliotrope*, *Thunbergia*, *Pelargoniums*,
Phlox Verbena, *Geraniums*; these, with hardy an-
 nuals, will make the parterres brilliant all summer.
 Do you love roses—the Queen of Flowers? I hope so,
 for I am as fond of them almost as that much abused
 tyrant old *Nero*, who, according to *Suetonius*, an an-
 cient historian, spent \$150,000 in roses at one supper!

"The rose is the honor and beauty of flowers,
 The rose is the care and the love of the spring,
 The rose is the pleasure of the heavenly powers;
 The boy of fair Venus, Cythera's darling,
 Doth wrap his head round with garlands of rose
 When to the dances of the graces he goes."

May I tell you my truly favorite roses? The *White
 Microphilla*, *Multa Flora* or the *Greville*, *Cloth of
 Gold*, and the *Prairie Roses* for climbers. *Microphilla
 Red*, *Louis Philippe*, *Madam Bosinque*, *Hermosa*,
Lord Raglan, *George Peabody*, *Old Yellow Tea*, *Old
 Daily*, *Unique Provence*, *Queen of France*, *Luxem-
 burgh*, *Madam Hardy*, *Persian Yellow*, and the *Moss
 Roses*. By the way, do you remember how the Ger-
 man poet explains the origin of the mossy covering?

"The angel of the flowers one day
 Beneath a rose-tree sleeping lay;
 That spirit, to whose charge is given
 To bathe the young birds in dews from heaven—
 Awakening from his light repose
 The angel whispered to the rose:
 'O fondest object of my care,
 Still fairest found, where all are fair,
 For the sweet shade, thou'st given to me,
 Ask what thou wilt, 'tis granted thee.'
 'Then,' said the rose, with deepest glow,
 'On me another grace bestow.
 The spirit paused in silent thought—
 What grace was there that flower had not!
 'Twas but a moment—o'er the rose
 A veil of moss the angel throws,
 And robed in nature's simplest weed,
 Could there a flower that rose exceed."